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# ENVIRONMENTAL ASSESSMENT BOARD

VOLUME:

191

DATE:

Wednesday, April 11th, 1990

BEFORE: A. KOVEN, Chairman

E. MARTEL, Member



FOR HEARING UPDATES CALL (TOLL-FREE): 1-800-387-8810



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# ENVIRONMENTAL ASSESSMENT BOARD

VOLUME:

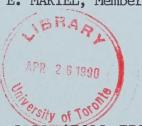
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FOR HEARING UPDATES CALL (TOLL-FREE): 1-800-387-8810



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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the <u>Environmental</u> Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental Assessment for Timber Management on Crown Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the Honourable Jim Bradley, Minister of the Environment, requiring the Environmental Assessment Board to hold a hearing with respect to a Class Environmental Assessment (No. NR-AA-30) of an undertaking by the Ministry of Natural Resources for the activity of timber management on Crown Lands in Ontario.

Hearing held at the Ramada Prince Arthur Hotel, 17 N. Cumberland Street, Thunder Bay, Ontario on Wednesday, April 11th, 1990, commencing at 8:30 a.m.

VOLUME 191

#### **BEFORE:**

MRS. ANNE KOVEN MR. ELIE MARTEL

Chairman Member



#### APPEARANCES

```
MR. V. FREIDIN, Q.C.)
MS. C. BLASTORAH ) MINISTRY OF NATURAL
MS. K. MURPHY
                      ) RESOURCES
MS. Y. HERSCHER
                     )
 MR. B. CAMPBELL
MS. J. SEABORN ) MINISTRY OF ENVIRONMENT
MS. B. HARVIE
MR. R. TUER, Q.C.) ONTARIO FOREST INDUSTRIES
MR. R. COSMAN ) ASSOCIATION and ONTARIO
MS. E. CRONK ) LUMBER MANUFACTURERS'
MR. P.R. CASSIDY ) ASSOCIATION
MR. H. TURKSTRA
                         ENVIRONMENTAL ASSESSMENT
                         BOARD
                       ONTARIO FEDERATION OF
 MR. E. HANNA )
 DR. T. OUINNEY )
                        ANGLERS & HUNTERS
 MR. D. HUNTER )
                        NISHNAWBE-ASKI NATION
 MS. N. KLEER )
                         and WINDIGO TRIBAL COUNCIL
 MR. J.F. CASTRILLI)
 MS. M. SWENARCHUK )
                        FORESTS FOR TOMORROW
MR. R. LINDGREN
 MR. P. SANFORD ) KIMBERLY-CLARK OF CANADA
 MS. L. NICHOLLS)
                         LIMITED and SPRUCE FALLS
 MR. D. WOOD )
                         POWER & PAPER COMPANY
 MR. D. MacDONALD
                         ONTARIO FEDERATION OF
                         LABOUR
MR. R. COTTON
                         BOISE CASCADE OF CANADA
                          LTD.
                     ONTARIO TRAPPERS
MR. Y. GERVAIS)
MR. R. BARNES)
                         ASSOCIATION
MR. R. EDWARDS )
MR. B. McKERCHER)
                         NORTHERN ONTARIO TOURIST
                        OUTFITTERS ASSOCIATION
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## LABORAGE STATE

### APPEARANCES: (Cont'd)

MR. D. KING

MR. L. GREENSPOON)

MS. B. LLOYD )

		J.W. ERICKSON, Q.C.) B. BABCOCK )	RED LAKE-EAR FALLS JOIN'S MUNICIPAL COMMITTEE
		D. SCOTT ) J.S. TAYLOR)	NORTHWESTERN ONTARIO ASSOCIATED CHAMBERS OF COMMERCE
		J.W. HARBELL) S.M. MAKUCH )	GREAT LAKES FOREST
M	R.	J. EBBS	ONTARIO PROFESSIONAL

NORTHWATCH

FORESTERS ASSOCIATION

ASSOCIATION OF ONTARIO

VENTURE TOURISM

MR. D. COLBORNE ) GRAND COUNCIL TREATY #3
MS. S.V. BAIR-MUIRHEAD )

MR. R. REILLY ONTARIO METIS & ABORIGINAL ASSOCIATION

MR. H. GRAHAM CANADIAN INSTITUTE OF FORESTRY (CENTRAL ONTARIO SECTION)

MR. G.J. KINLIN DEPARTMENT OF JUSTICE

MR. S.J. STEPINAC MINISTRY OF NORTHERN DEVELOPMENT & MINES

MR. M. COATES ONTARIO FORESTRY ASSOCIATION

MR. P. ODORIZZI BEARDMORE-LAKE NIPIGON WATCHDOG SOCIETY

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### APPEARANCES: (Cont'd)

MR. R.L. AXFORD CANADIAN ASSOCIATION OF

SINGLE INDUSTRY TOWNS

MR. M.O. EDWARDS FORT FRANCES CHAMBER OF

COMMERCE

MR. P.D. McCUTCHEON GEORGE NIXON

MR. C. BRUNETTA NORTHWESTERN ONTARIO

TOURISM ASSOCIATION



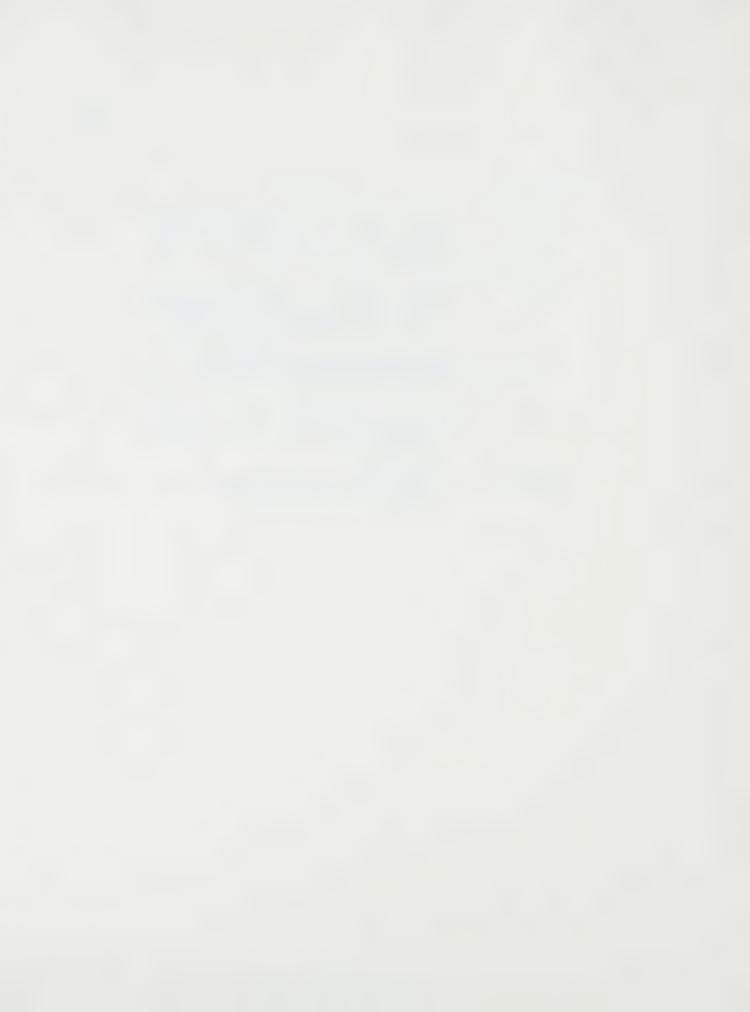
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1	Upon commencing at 8:35 a.m.
2	MADAM CHAIR: Please be seated.
3	Ms. Cronk, before you start
4	MS. CRONK: Thank you.
5	MADAM CHAIR:just a minute to tie
6	together some of the sense from last evening.
7	We won't be hearing any more submissions
8	on fixing the date for Forests for Tomorrow's
9	submission of witness statements. The Board will be
10	going over that material and going over your
11	submissions to us and we will be issuing our directive
12	later this week.
L3	With respect to the other proposals that
L 4	Forests for Tomorrow has made with respect to
L5	documentation distribution, we will hear submissions
16	from other parties and we will set the date for April
L7	the 25th. I think most of the parties will be in
18	Thunder Bay that day and we will hear submissions on
L9	the evening of April the 25th.
20	MS. SWENARCHUK: Excuse me, Mrs. Koven.
21	I in fact was not planning to be here that day that
22	week. Assuming that Panel 7 is on, Mr. Castrilli will
23	be here for us.
24	Is it urgent that it be done then or
25	could it be done the next time while in Toronto, or the

1	alternative would be next week when I am here again.
2	MADAM CHAIR: Yes, next week is
3	MS. SWENARCHUK: Too early?
4	MADAM CHAIR: Not too early for the
5	Board, it's just a matter of notifying the other
6	parties. It suits the Board.
7	MS. SWENARCHUK: I will and send a letter
8	tomorrow to all the parties outlining what I outlined
9	last night. I can include in that letter a notice that
10	you have indicated that it's to be discussed.
11	MADAM CHAIR: Then we will change the
12	date to the 6th. We are here we are scoping Panel 7
13	next Wednesday?
14	MR. CASSIDY: That's correct, the 18th.
15	MADAM CHAIR: So the 17th is the Tuesday.
16	MS. SWENARCHUK: The Tuesday evening.
17	MADAM CHAIR: The evening of the 17th the
18	Board will hear submissions about Ms. Swenarchuk's
19	proposals on documentation distribution and other
20	matters.
21	The Board will also be issuing something
22	with respect to the use of witness panels at satellite
23	hearings, although you have heard essentially our
24	decision already, but we will put something in writing
25	and issue that probably the next week as well.

1	MS. SWENARCHUK: And again, scoping Panel
2	7 is next Wednesday?
3	MADAM CHAIR: Next Wednesday evening is
4	the date Mr. Cassidy proposed and the Board thought
5	that was suitable.
6	MR. CASSIDY: With the deadline for the
7	statement of issues being the 17th?
8	MADAM CHAIR: Yes.
9	MR. MARTEL: Yes.
10	MADAM CHAIR: Are there any other dates
11	that we discussed last evening?
12	MR. CASSIDY: The only other date I think
13	we spoke to, Madam Chair, was on the 18th we would then
14	fix a date to discuss the matter of filing terms and
15	conditions?
16	MS. SWENARCHUK: And I would just like to
17	repeat a request that Ms. Devaul perhaps fax all the
18	parties outlining all of these dates, since not
19	everyone will necessarily know them otherwise.
20	MADAM CHAIR: Yes.
21	MS. SWENARCHUK: Thank you.
22	MS. SEABORN: Madam Chair, perhaps we
23	could fix a date for that terms and conditions
24	discussion right now, because if Ms. Devaul is going to
25	send out a letter listing dates, that would give all

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1	the parties ample notice of that, and I think the
2	suggestion was that if we had that the week of April
3	24th.
4	MADAM CHAIR: The 23rd.
5	MS. SEABORN: Either the 24th or 25th, I
6	suggest.
7	MADAM CHAIR: Ms. Blastorah, the date
8	that your client is going to be contacting the parties
9	was next week?
10	MS. BLASTORAH: April 12th.
11	MR. CASSIDY: Tomorrow.
12	MS. BLASTORAH: Tomorrow. That material
13	will be distributed.
14	MADAM CHAIR: All right. And we assume
15	you will be ready for the discussion any evening the
16	week of the 23rd?
17	MS. BLASTORAH: As far as I know that
18	won't be a problem. I expect it will probably depend
19	more on the other parties reviewing the material.
20	Obviously I can't project at this time whether there
21	may be any issues of clarification that they may need
22	or any discussion in that regard, but at this time I
23	don't see why it wouldn't be possible.
24	MADAM CHAIR: Well, let's set the date
25	for Tuesday evening, April the 24th.

1	MS. BLASTORAH: Thank you.
2	MADAM CHAIR: Ms. Cronk?
3	MS. CRONK: Thank you, Madam Chair, Mr.
4	Martel.
5	When we broke yesterday afternoon Mr.
6	Squires was presenting evidence regarding case study 4C
7	and I should point out as well that a number of the
8	witnesses on the panel indicated to me last night that
9	from the angle where they were sitting they were having
10	difficulty seeing the screen and the exhibits, so with
11	your indulgence they switched.
12	WILLIAM J. ROLL,
13	JAMES A. WADDELL,  JAMES RODERICK GEMMELL,
L 4	PETER MITCHELL MURRAY,  MALCOLM F. SQUIRES, Resumed
15	CONTINUED DIRECT EXAMINATION BY MS. CRONK:
16	Q. Mr. Squires, then with respect to
17	your case study, case study 4C dealing with the Spruce
18	River Forest, could you outline for the Board, please,
19	the nature of the cover type dealt with in the case
20	study?
21	MR. SQUIRES: A. Yes, I can. The cover
22	type as has been mentioned is the spruce-fir hardwood
23	or mixed wood cover type. The nature of that cover
24	type as found in the Spruce River Forest is generally a
25	mixture of species including black spruce white

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spruce, balsam fir, trembling aspen and white birch. 1 2 Occasionally jack pine will be involved. 3 The cover type can involve any mixture of 4 those species. On the Spruce River Forest we looked at the cover type as involving at least 10 per cent of 5 6 hardwood or softwood, so any mixtures inbetween that 7 range then would fall into the description of the cover 8 type. When we did that and analysed our FRI we found 9 that approximately 40 per cent of the Spruce River 10 Forest is covered by this cover type. 11 I should add that the cover type in that 12 mixture or range of mixtures would probably be found in 13 each of the FMAs and across the area of the 14 undertaking. 15 Q. And yesterday, Mr. Squires, you 16 pointed out on Exhibit 1110 where the case study area 17 was situate within the Spruce River Forest forest 18 management agreement area. How far is the case study 19 area from Thunder Bay? 20 The case study area from Thunder Bay 21 is approximately 60 kilometres or 37 miles in a 22 straight line. If we were to take a road, however,

23

24

25

travelling from Thunder Bay up the Spruce River Highway

and across the Wolf River Road to the vicinity of the

case study area would be 67 kilometres or 40 miles.

1	Q. And how large is the case study area
2	in total?
3	A. The case study area is 192 hectares.
•4	Q. And can you explain to the Board why
5	you felt it appropriate to select and present this case
6	study to them regarding the timber management
7	activities in this area of the area of the undertaking?
8	A. Yes, I can. The case study was
9	chosen because it's an example of the type of
10	silviculture that is carried out within this working
11	group in the area of the undertaking.
12	A second reason was that it was a
13	relatively productive site on fine textured soils and
L 4	those soils range from clay to sandy loam, they are
15	generally well drained, fresh, stone free, moderately
L6	stoney. The site is moderately rich and supports a
L7	wide variety of herbs, shrubs and grasses in addition
L8	to the tree species mentioned.
19	The third reason was that demonstrates
20	the regeneration potential of NSR, particularly NSR 3
21	which is a major part to renewal of the initial years
22	of most FMAs.
23	The fourth reason we chose the case study
24	area was that it permitted an examination of the
25	sequence of timber management from access to fifth-year

1	assessment.
2	Q. The Board has heard other evidence,
3	Mr. Squires, from MNR witnesses concerning NSR lands,
4	but can you help me: Are all the lands in this case
5	study area NSR lands?
6	A. Yes, they are.
7	Q. All right. And could you explain in
8	greater detail, if you would please to the Board, the
9	relationship of the case study area to the Wolf River
10	Road and describe to the Board the blocks or the stands
11	that comprise the case study area?
12	A. Yes, I can. I would like to now go
13	to Figure 2 which will be found on page 6 of the text.
14	To do that I will illustrate with an overhead.
15	Q. This is Figure 2 you said, Mr.
16	Squires?
17	A. Yes, this is Figure 2.
18	Q. And what does it depict?
19	A. Figure 2 depicts the precise location
20	of the case study area on the Wolf River Road, and if
21	we were to refer back to the map of Figure 1 or Exhibit
22	1110, I will again point out the location of the Wolf
23	River Road exiting from Highway 527 at the south end of
24	the Spruce River Forest and then travelling east
25	through the red block, which I have identified as a

1	base map 488-884, and that contains the blowup we have
2	on the screen here for Figure 2.
3	Going to Figure 2, we see three blocks
4	and they are located along the Wolf River Road. The
5	red block which is block 5, the yellow block, block 6
6	are north of the Wolf River Road and block 10 is south
7	of Wolf River Road and east of the other two blocks,
8	and block 10 is coloured in green.
9	Q. Do those three blocks all form part
10	of the case study area?
11	A. All three of those blocks form the
12	case study area. I should point out that block 5 has
13	76 hectares; block 6 has 55 hectares, and block 10 has
14	61 hectares.
15	Q. Can you describe for the Board what
16	the characteristics were of each of the blocks?
17	A. Yes, I can. The condition of the
18	blocks at the time of the beginning of renewal efforts
19	was as I described earlier NSR, and that means it was
20	primarily unregenerated condition, that's unregenerated
21	to the initial species.
22	The block 5 area was primarily barren and
23	scattered, block 6 was partially barren and scattered -
24	I am speaking now to the 1971 inventory - block 6 was
25	nartially harren and scattered and nartially

1	understocked, or partially stocked mature stands mostly
2	of poplar working group with one small stand of black
3	spruce. Block 10 in the 1971 inventory was an
4	unharvested stand of poplar working group with black
5	spruce and white spruce poplar mixture and the
6	occasional jack pine.
7	Q. When were these blocks first
8	harvested, Mr. Squires?
9	A. Blocks 5 and 6 were first harvested
10	in 1954-56 by Abitibi-Price. Blocks 5 and 6, also
11	block 10, were harvested a second time in 1971-75 by a
12	variety of third parties, and again in 1982 all three
13	blocks were harvested a third time. This time a
14	salvage operation of residual or remaining merchantable
15	values that we wanted removed in order to complete
16	renewal efforts.
17	Q. All right. Well, we will come to the
18	details of the harvesting efforts in a moment, but are
19	you able to illustrate for the Board what the
20	conditions of these stands were at the time of the
21	initial harvesting in the mid-1950s?
22	A. Yes, I can. And to do that I would
23	like to go to some slides.
24	Q. What slide number is this, Mr.
25	Squires?

1	A. This is slide No. 2.2. I would like
2	to point out some features of this slide.
3	The location of it is almost midway

between blocks 6 and 10 of the case study on the south side of the Wolf River Road and it's located in the streamside reserve on the Wolf River. I take it to be a typical example of the hardwood portion with a softwood understorey of the condition that pre-existed the 1954-56 harvest which was a softwood harvest by Abitibi-Price.

Stands of this nature were partially cut in that harvest and would be found primarily on block 6 at the time of the signing of the Spruce River Forest and the beginning of renewal efforts in the case study.

Right here we are looking at a poplar overstorey with the trees approximately 20 to 22 metres tall, an understorey of white spruce and black spruce and some balsam fir and a very rich herbaceous ground cover.

MR. MARTEL: Can I ask a question, Mr. Squires? Had it been cut previous to this, because the area you said was pretty good in terms of soil and so on. What accounts for it being NSR at that stage of the game? Had there been previous cutting on it or prior to 55?

1	MR. SQUIRES: Are we speaking to the
2	slide or the case study area in general?
3	MR. MARTEL: Well, I am not sure there is
4	that much difference; is there? I am just talking in
5	terms of that area.
6	MR. SQUIRES: Okay. To make a
7	distinction in the slide I said it's in a streamside
8	reserve, so it was never harvested.
9	The case study area itself, blocks 5 and
10	6 were clearcut, to all practical purposes block 5 was
11	entirely clearcut for softwood. So if I would assume
12	that that was a pure softwood condition or nearly,
13	there were some residual white birch and trembling
14	aspen left.
15	Block 6, portions of it were clearcut in
16	the clearest description of clearcut. Portions of it
17	were apparently partially cut because there was enough
18	residual poplar and white birch in the 1971 inventory
19	which came after the 54-55 54-56 harvest. It then
20	became classified as hardwood. But if my memory is
21	correct, it was approximately 60 per cent stocked; in
22	other words, that is 60 per cent of the potential basa?
23	area on the stand.
24	Block 10 was not harvested at all until
25	1971-75. At that time it was practically clearcut for

1	a variety of problems.
. 2	MR. MARTEL: You indicated this term
3	though, not satisfactorily regenerated at the time you
4	started.
5	MR. SQUIRES: Yes.
6	MR. MARTEL: I guess the difficulty I am
7	having is understanding why an area that has good soil
8	and so on would be not satisfactorily regenerated?
9	Maybe I am just mixing up when the
10	definition was put to it, not satisfactorily
11	regenerated, because under those types of conditions
12	they should have good growth; should they not?
13	MR. SQUIRES: Okay. The not
14	satisfactorily regenerated designation was applied to
15	it at the time of the signing of the FMA with the NSR
16	survey, okay, and it was judged to be not sufficiently
17	restocked because it had not regenerated to the
18	original softwood species.
19	MR. MARTEL: That was the early 80s then?
20	MR. SQUIRES: That is correct.
21	MR. MARTEL: All right. Fine, thank you.
22	That is what it was.
23	MS. CRONK: Q. When was the Spruce River
24	Forest FMA signed, Mr. Squires, what year?
25	MR. SQUIRES: A. The Spruce River Forest

1	agreement was signed in December of 1981.
2	Q. All right. And do I take it then in
3	light of your exchange with Mr. Martel that it was at
4	that time that the NSR designation was found to apply
5	to this area?
6	A. That is correct.
7	Q. And I am sorry, is there another
8	slide then that you wish to show the Board?
9	A. Yes, I do have another photograph and
10	it is photograph 2.3. I show this photograph to
11	illustrate what the case study area looked like prior
12	to the salvage harvest in 1982.
13	A significant portion, particularly the
14	barren scattered and areas of block 5 and block 6, I am
15	talking pre-NSR designation, barren and scattered here
16	now as it would have been described in the 1971
17	inventory.
18	This slide was not taken on the case
19	study area, it was taken in an area of the 1956
20	harvest, about seven kilometres to the west of the case

harvest, about seven kilometres to the west of the case study area and it was in a small portion of that area that had regenerated similarly to the way the case study area had regenerated to a mixture of scrub hardwood species with the occasional white birch and some trembling aspen.

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The slide is shown to illustrate the

density of that vegetation and the probable reason why

there was very little softwood present at the time of

the signing of the FMA and the NSR survey. I point out

a stump from the 19 -- from the trees harvested in the

1956 harvest.

Q. You are pointing to the right lower

portion of the photograph?

background to the photograph.

: 02

A. Thank you. Yes, I am, Ms. Cronk.

The lower right corner is the stump. Adjacent to the stump and just to the right of it there is a small white birch tree. There is a clump of speckled alder immediately behind the stump and forming most of the

Immediately at the base of the stump there is a view of a variety of the herbaceous species that were present. There is a yellow pitatonia, there is a trientalis borealis or a star flower, and not visible but there are various lycopodium mosses and I believe there is a fern that appears to be one of the dryopteris species present to the right of the stump. There is very little moss cover although a lot of leaf litter present.

Q. Do the conditions shown in this photograph reflect the conditions on the case study

1	area prior to the 1982 harvest, Mr. Squires?
2	A. That is correct. Certainly primarily
3	on block 5 and 6 and some portions of block 10.
4	Q. Now, among the interrogatories that
5	we have filed with the Board, Mr. Squires, are
6	interrogatories delivered by the Ministry of the
7	Environment. Do you have a copy of those as we marked
8	them yesterday?
9	A. Yes, I do.
10	Q. I would ask you to look, if you would
11	please, at MOE Interrogatory No. 11 which is part of
12	Exhibit 1104. MOE Interrogatory No. 11. Do you have
13	that, Mr. Squires?
14	A. Yes, I have it.
15	Q. Well, I am not going to ask you to go
16	through this, but the question related to a request for
.7	the provision of FRI stand parameters for each area
. 8	harvested and renewed, and in the centre section of the
.9	response dealing with case study 4C certain stand
20	parameters are set out.
21	Can you help me, please: Does the
22	information contained there reflect the FRI data
23	available regarding this case study area in the early
24	1970s?
25	A. Yes, it does. And what I would like

to point out about that information is the predominance 1 2 of the barren and scattered and first age classes which 3 are indicative to me of my earlier statement that most 4 of the block 5 and 6 were clearcut. 5 Q. All right. And how can we tell from 6 this information that there is a predominance of barren 7 and scattered cover? 8 A. If we were to look at the block 5 stands we find that three of the four stands were 9 10 barren and scattered, and if we look at block 6, two of 11 the stands, one of them the major stand in the block, 12 was barren and scattered. 13 Q. Now, you have indicated to the Board 14 the periods over which harvesting took place. Could 15 you provide an indication to the Board of the timing of 16 the full timber management activities that took place 17 in the case study area? A. Yes, I can. The first harvest, as I 18 19 have already mentioned, took place in 1954-56, a second

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Also in 1982, following the signing of the FMA and our renewal responsibilities, we carried out an aerial spray of 2,4-D. Also in 1982 we carried out mechanical site preparation treatments. There were

harvest occurred in 1971-75, and a third harvest which

I referred to as a salvage harvest occurred in 1982.

1	two treatments on block 10 and a small portion of block
2	5 and one treatment on the remainder of block 5 and all
3	of block 6.
4	In 1983 the entire case study area, 192
5	hectares, was planted with large black spruce container
6	stock and in 1984 blocks 5 and 6 were aerially tended
7	and in 1985 block 10 was aerially tended.
8	Q. All right. Well, before we come to
9	examine those activities, could you first, Mr. Squires,
10	outline generally for the Board what organizational
11	structure applied at Abitibi-Price at the time that
12	these case study activities were undertaken?
13	A. Yes, I can. And for the Board's
14	benefit I will show overheads of that. I would like
15	the Board to go to Figure 4 found on page 11 and that
16	
	will be overhead
17	This overhead is a small summary of the
17 18	
	This overhead is a small summary of the
18	This overhead is a small summary of the organizational structure of the Lakehead Woodlands of
18	This overhead is a small summary of the organizational structure of the Lakehead Woodlands of Abitibi-Price that pre-existed the Spruce River Forest;
18 19 20	This overhead is a small summary of the organizational structure of the Lakehead Woodlands of Abitibi-Price that pre-existed the Spruce River Forest; that is to say, pre-1981.
18 19 20 21	This overhead is a small summary of the organizational structure of the Lakehead Woodlands of Abitibi-Price that pre-existed the Spruce River Forest; that is to say, pre-1981.  Q. It pre-existed the forest or the FMA?
18 19 20 21 22	This overhead is a small summary of the organizational structure of the Lakehead Woodlands of Abitibi-Price that pre-existed the Spruce River Forest; that is to say, pre-1981.  Q. It pre-existed the forest or the FMA?  A. The FMA.

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At that time the Lakehead Woodlands

Division was headed up by a woods manager, there was an 1 2 assistant woods manager reporting directly to him. 3 assistant to the woods manager was responsible for the 4 renewal effort that was occurred on the freehold lands 5 of Abitibi-Price, the Lakehead, and harvesting and 6 supply of wood products to supply the three paper mills 7 I've mentioned and a sawmill at the time. 8 The general superintendent of forestry and purchasewood, which is one of two general 9 10 superintendents reporting to the assistant woods 11 manager, the general superintendent of forestry and 12 purchasewood also had assistant superintendent of 13 forestry. The assistant superintendent's responsibility was to carry out the planning and to 14 15 supervise the renewal efforts on the company's freehold 16 at the division. 17 The general logging superintendent was responsible for the production superintendent's 18 19 supervision of harvesting efforts on the company's 20 licensed and freehold lands. 21 The significant part of this 22 administration is that there was a complete split 23 between harvesting and renewal. 24 I would like to now go to Figure 5 which

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is located on page 12. Figure 5, we see the

organization of the Lakehead Woodlands relative to
harvesting and renewal as it existed in 1989. At this
time we had a woodlands manager, but the assistant
woodlands manager is no longer present.

The split between the general logging superintendent -- or general superintendent of forestry and purchasewood and the general logging superintendent still exists in line structure.

Beneath the general superintendent of forestry and purchasewood there was in 1989 a divisional forester, beneath the divisional forester there was a management forester. The management forester was the author of timber management plans for the Lakehead Division Timber Limits and there was a staff foreman reporting directly to the divisional forester. His responsibilities in the line structure were the freehold renewal efforts and a portion of the renewal on the FMA in the northwest corner if we were to look at Exhibit 1110. This area here on the northwest corner. (indicating)

The general logging superintendent in 1989 had some new staff. He had an operation forester whose responsibility was to supervise the planning and layout of renewal on the east, central and south portions of the FMA as illustrated on Exhibit 1110.

Additionally he had a staff foreman planning. That staff foreman planning was responsible for liaison at the camp level with camp staff to get the grass roots, so to speak, information for planning purposes. It was his responsibility and is his responsibility to communicate that grass roots information to the author of the plans.

During renewal efforts on the FMA, there are some staff shuffles. The management forester who is the author of the plans gets some field experience, he reports at that time directly to the general logging superintendent and he supervises the planting effort in the southern half -- I should say a third of the FMA. The staff foreman forestry for freehold renewal efforts, as I mentioned, does the planting in the northwest corner of the FMA, he also has full responsiblity for all tending on the FMA and all of our lands.

The Board I believe will see that there is a fair amount of integration of responsibilities, renewal and harvesting and that the general logging superintendent is totally responsible for the successful delivery of wood to the mill or mills at Thunder Bay and he is also responsible for the actual renewal effort.

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1	The divisional forester has the
2	responsibility for the technical input into that
3	renewal effort and there is an ongoing communication
4	between the general logging superintendent and the
5	divisional forester and it is essential that the two
6	responsibilities work very closely together at all
7	times.
8	Q. Just looking at that organizational
9	chart, Mr. Squires, is the position that you currently
10	hold reflected on this figure?
11	A. Yes, I'm the Divisional Forester.
12	MADAM CHAIR: Excuse me. Mr. Squires,
13	does Abitibi have responsibility for renewing the
14	licensed areas and freehold areas that you have
15	mentioned?
16	MR. SQUIRES: No, we do not.
17	MADAM CHAIR: You simply purchase the
18	wood from those areas?
19	MR. SQUIRES: Those areas are held under
20	Crown license. We have not got an FMA on them, so they
21	probably and the Ministry of Natural Resources has
22	the renewal responsibilities similar to what they had
23	on the Spruce River Forest prior to the signing of our
24	FMA.
25	MADAM CHAIR: And in your opinion are the

1	renewal efforts in those areas comparable to your FMA
2	area?
3	MR. SQUIRES: No, they're not in volume.
4	MS. CRONK: Q. We have heard from Mr.
5	Roll and from Mr. Gemmell as to the physical
6	infrastructures that were in place in their companies,
7	Mr. Squires, to permit the carrying out of the timber
8	management activities described in their case studies.
9	In a comparative way, was there such
10	physical infrastructure in place at the Lakehead
11	Woodlands Division of Abitibi-Price for the purposes of
12	the case study activities that you will be describing?
13	MR. SQUIRES: A. Yes, there was
14	infrastructure in place at the time, no additional
15	infrastructure was required after the signing of the
16	FMA.
17	I pointed out the Wolf River Road and its
18	existence at the time we started the renewal effort and
19	the existence of the Highway 527. They were the routes
20	on which all timber volumes removed from the case study
21	area were extracted and carried to mills. There were
22	also the routes that the renewal people utilized to
23	access the case study area for renewal. So no
24	additional access was required and no camp facilities
25	were required.

1	Q. I'm sorry, no?
2	A. Camp facilities.
3	Q. Camp facilities.
4	A. The workers commuted daily from
5	Thunder Bay.
6	Q. What is the current employment of the
7	Lakehead Woodlands Division of Abitibi-Price, Mr.
8	Squires?
9	A. In December of 1989 we employed 279
10	full-time employees and during the renewal efforts in
11	the summer of 1989 we employed 173 part-time people at
12	renewal efforts. There were generally the employees of
13	contractors, but a fair number of them were direct
14	employees of Abitibi-Price.
15	Q. Could we turn now then, if you would,
16	please, to the actual timber management activities
17	carried out on the case study area.
18	And bearing in mind what you have already
19	said about the existing road network in the area, could
20	you start with access and please indicate if there are
21	any other features of the access arrangements which you
22	wish to draw to the attention of the Board?
23	A. Yes. I guess I should go back to the
24	map on Figure 2 again. I put that overhead up merely
25	to illustrate that. I would now like to go to Figure

1	3.
2	Q. What does Figure 3 depict, Mr.
3	Squires?
4	A. Figure 3 shows a map of the
5	harvesting that took place in the period in the 1940s
6	to the 1950s and I believe some areas of that map up to
7	the 1970s on the Wolf River area of the Spruce River
8	Forest.
9	The Wolf River Road, which I earlier
10	illustrated on Figure 2, is also present on this
11	illustration. This is what is now the Highway 527
12	which was the Old Spruce River Road constructed by
13	Abitibi-Price in late 1950's, early 60s and it
14	continues west and later on north. This is the
15	junction of the Wolf River Road and Highway 527.
16	Wood was extracted I'm sorry, wood was
17	extracted in this direction at the time of the Abitibi
18	harvest out through Dorion on the Wolf River. The case
19	study blocks are shown in this overhead coloured in
20	red, in the case study text evidence they are outlined
21	in red.
22	The stippled dark stippled areas here
23	are the area of harvest by Abitibi-Price before the FMA
24	and it's clear from this map that case study block 5
25	located to the west here, case study case block 6

1	immediately adjacent to it were included in that
2	stippled area indicating that there were harvested in
3	the 1954-56 harvest period.
4	Q. Was that true of block 10?
5	A. Block 10 is in the clear white area
6	and it is reasonably clear that that area was not
7	harvested at all during that time period.
8	Q. Then dealing just with blocks the
9	two blocks that were harvested, blocks 5 and 6, what
10	were the options available for harvesting in that time
11	period?
12	A. The options for harvest were
13	basically to use bucksaw and ax, there were no chain
14	saws that were of a practical nature, to fell trees and
15	remove the branches.
16	There were two alternatives for
17	extraction and there were basically one was a horse
18	and the option in this case was to skids the logs to
19	roadside, the horse; and the second option was to buck
20	the trees into 8 or 16-foot lengths and forward them to
21	roadside with tractor.
22	The tractors in this case were of two
23	probable natures but both very similar. One would
24	winch the piles of eight-foot pulp logs in with a

cable, it would raise them off the ground and carry

them to roadside. The second alternative was similar
except instead of a cable a grapple was utilized to
lift the logs and forward them to roadside. The cable
skidder -- or forwarder in this case, would have been
called a Nelson skidder and the grapple tractor would
have been called a Johnson skidder.

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Q. What then happened in the early 1970s when the second harvesting activity took place?

A. In the 1970s, the chain saw was then the primary felling method and limbing method. A man with a chain saw approached the tree, sawed in down and sawed the branches off.

The extraction method that was -- almost 20 years in the area at that time, was to utilize articulated frame wheeled skidders with cable manglings and chokers to gather the merchantable trees, felled trees together and skid them to the roadside.

In the particular case we are talking about here, the second harvest was primary for veneer bolts and the logs -- veneer logs were sawed in the bush and skidded to roadside as logs rather than as tree lengths. Some softwood values were harvested in block 10 and they would have been skidded to roadside as tree length.

Q. Can you assist the Board as to where

1	the harvesting actually took place in the early 1970s?
2	A. In the early 1970s, the entire area
3	of the case study was harvested. I should go to Figure
4	6 and 7 to illustrate that more clearly.
5	Q. Again from the case study?
6	A. That is from the case study. Figure
7	6 will be found on page 22 and Figure 7 will be found
8	on page 23.
9	Q. This is Figure 6?
10	A. This is Figure 6.
11	Q. And what does it depict?
12	A. It depicts a copy of the FRI map
13	488-884 and the vicinity of case study blocks 5 and 6
14	and this is a version of the FRI map that has been
15	updated with harvesting. It depicts the 1971-75
16	harvesting and it is shown with hatching.
17	The vertical hatching here which covers
18	the entire area of block 5 and portions of block 6 and
19	there is additional diagonal hatching. The different
20	forms of hatching depict different years. What is
21	shown here is that the entire of the case study blocks
22	was indeed harvested.
23	Q. And what about block 10?
24	A. For block 10 we will go to Figure 7.
25	Block 10 is found in the centre of the figure, it is or

1	the south side of the Wolf River Road and outlined in
2	red and it also depicts cross-hatching with the
3	exception of an area to the northwest.
4	So it appears about 80 per cent of the
5	area was clearcut in 1975.
6	Q. And you've indicated earlier to the
7	Board that there was a third period of harvesting for
8	salvage purposes in the early 1980s.
9	Could you outline for the Board what was
10	done then and indicate where?
11	Q. Yes, I can. The salvage harvest
12	took place in 1982 and it was primarily with chain saw
13	again and wheel skidder and the purpose of that third
14	harvest was to remove remaining residual, merchantable
15	values in all species.
16	Balsam fir, black spruce, white spruce,
17	poplar - leaving trembling aspen - white birch and
18	occasional jack pine were all removed during that
19	period of salvaging and it was to clear the area and
20	make it practical to carry out renewal efforts.
21	Q. Okay, thank you.
22	Can you assist the Board, Mr. Squires, as
23	to how the timber was used during each of these time
24	periods when harvesting took place?
25	A. Yes, I can. In the 1954-56 harvest

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1	the balsam fir, black spruce and white spruce were
2	delivered to the three paper mills of Abitibi-Price
3	in Thunder Bay for manufacturing paper.
4	In the 1971-75 harvest, the main items
5	that were removed were veneer logs, both aspen and
6	birch, and they were delivered to Multi-Ply Hardwoods
7	at Nipigon where they were made into plywood.
8	The 1982 harvest, which I've stated,
9	utilized all the hardwood merchantable species at the
10	time and they went to, to the best of our information,
11	practically all of the local mills in some form or
12	another.
13	The pulp values, balsam fir, black
L4	spruce, white spruce went to Abitibi-Price mills, some
15	jack pine went to Canadian Pacific Forest Products,
16	some poplar went to Canadian Pacific Forest Products
17	and some to MacMillan Bloedel waferboard mill at
18	Papoonge, and additionally there were some veneer
19	values that went to Multi-Ply at Nipigon.

Q. Could you return then to renewal, Mr. Squires, and again in a summary way outline for the Board please what the options were for the case study area and then what, in fact, was done on each of these blocks?

A. Yes. I would like the Board now to

1	follow me to Appendix 1 and leave the following page
2	42, two pages of that Appendix I will show as overheads
3	to help describe the procedure of selection of options.
4	I would first like to show page 3 of Appendix 1.
5	I would like to apologize if I happen to
6	be casting this beam in somebody's eyes, it is
7	something I'm not used to.
8	Here we have page 3 of Appendix 1 which
9	is a copy of the Spruce River Forest groundrules, Table
.0	1, which sets out the silvicultural prescriptions and
.1	stocking standards for the FMA activities on the Spruce
.2	River Forest.
.3	I show page 3 because it illustrates one
. 4	of the two choices we had of the renewal effort on the
.5	case study area. I refer the Board to site description
.6	2 in the left column on page 3 which describes deep,
.7	well drained organic soils, less than four inches over
. 8	silt to loam mineral soil, usually site class $\mathbf{x}$ , 1 and
.9	2.
20	The inventory working group, spruce;
21	proposed working group, black spruce; method of
4 -40	
22	harvest, clearcut; and treatment, site prepare to
	harvest, clearcut; and treatment, site prepare to rearrange slash, expose mineral soil for 800 planting

acre, tend if necessary. That prescription fits the

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1	site conditions that existed on the case study area at
2	the time of initial harvest in 1954-56. We felt that
3	was an option.
4	I would now like to take the Board to the
5	second site description which we thought also fitted
6	the case study area and I would take you to page 5.
7	Q. Just before you leave that, Mr.
8	Squires, if I could ask you to look at B under that
9	site description; did it apply to the case study area
10	and, if not, why not?
11	A. It did not apply in the case study
12	area because that is a cover type variance that has a
13	large portion of jack pine which was not present on a
14	great majority of this case study. So we felt that it
15	was not one of the options available to us.
16	Q. Thank you. This is page 5 you said?
17	A. This is page 5 of Appendix 1 or Table
18	1 of the Spruce River Forest ground rules. I would
19	draw the Board's attention to site description No. 6,
20	deep well drained with organic soil of less than four

The inventory working group at the time

inches over glacial till to deep silts. You'll recall

that description of the deep silts being present on the

site and the whole area was covered with glacial till,

that was the apparent material.

1	of the signing of the FMA and beginning of renewal
2	efforts was poplar or white birch entirely, that is
3	according to the 1971 inventory, which you'll also
4	recall they were mostly barren and scattered.
5	The proposed working group in A
_	
6	alternative which was the preferred alternative in this
7	set of ground rules, so the proposed working group,
8	black spruce. And to achieve that, the prescription
9	for harvest was to clearcut softwood and hardwood when
.0	markets available, but will operate if markets were
.1	available. So the area was clearcut.
.2	The available treatment under this
.3	prescription was exactly the same as under the
.4	prescription I previously described and that was to
.5	site prepare and rearrange slash and expose 800
.6	planting chances per acre and plant 800 black spruce
.7	trees per acre.
. 8	So we had two alternatives which turned
.9	out to be the same.
20	Q. And what were the minimum stocking
21	requirements under those alternatives?
22	A. The minimum stocking requirements for
23	the stocking of the proposed working group species
24	was 40 per cent. The objective stocking to acceptable

species was 70 per cent. An acceptable species here

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preparation?

1	would have included black spruce, white spruce, balsam
2	fir and jack pine.
3	Q. With respect then to the site
4	preparation component of the prescribed treatments,
5	what were the options available to the company
6	concerning site preparation?
7	Perhaps we could take about it in 1982
8	after the last salvage harvest, what was available then
9	and it was
10	A. The option for site preparation?
11	Q. Yes.
12	A. The option for site preparation at
13	that time were varied. We could have done no site
14	preparation or we could have chemical site prepared
15	with no mechanical treatment or we could have
16	mechanical site prepared with no chemical site
17	preparation, or we could have combined chemical and
18	mechanical.
19	Q. And what in fact was done?
20	A. In fact, we combined chemical and
21	mechanical and at an early stage in a portion of the
22	area we had two mechanical site preparation treatments
23	Q. Did the applications go as the

company envisaged in terms of carrying out the site

dr ex (Cronk)

A. No, they did not go exactly through the entire treatment, the one that we had prescribed in our plan. The chemical site preparation did proceed as planned on blocks 5 and 10 and the mechanical site preparation proceeded as planned on block 10: that is to say it received a treatment from the marden chopper and Bracke scarifier.

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In the case of blocks 5 and 6, we ran into mechanical difficulties on block 5 and we had to introduce a second tractor on the site and the conclusion of the project was that the marden chopper treated 10 hectares of block 5, but on the remainder of the block 5 and all of block 6 a tractor with a blade was utilized to do the mechanical site preparation and the Bracke site preparation was cancelled.

Q. Thank you, Mr. Squires.

Still dealing with the site preparation options and what in fact was done, Mr. Squires, will you be part of the Industry's panel of witnesses dealing with renewal matters in the future?

A. Yes, I will.

And will you be dealing with the issue of renewal treatments on the case study area at that time?

A. Yes, I will.

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Q. All right. Bearing that in mind,
could you just indicate very briefly to the Board as
this point why two mechanical site preparation
treatments were required together with chemical?
Was there anything in particular that
caused that to be done?

The Board will recall I talked Yes. about this being a NSR condition and the condition that prevailed was very dense thicket of hardwood brush with a wide variety of species, and additionally scattered and in some cases dense poplar regeneration and white birch regeneration.

The condition of that regeneration was such that we felt there was going to be a problem with mechanical site preparation because of that density and we required to prepare micro-sites for planting. The resulting site condition that would prevail without pre-treating the vegetation to make it brittle would be that it would be hazardous for the planters and impractical to a large extent.

So we chose to use the 2,4-D herbicide to kill most of the broad leaf vegetation and to make it brittle so that mechanical site preparation would crush it and incorporate it into the humus or duff layers so that it would decompose and add to the site.

1	Q. And then when it came to planting,
2	Mr. Squires, what were the options available to the
3	company in that regard?
4	A. The options that were available to
5	the company in planting were basically to plant
6	container or bareroot, and we chose the container
7	option because the seedlings had already been grown for
8	us at local greenhouses and they met our
9	specifications.
10	The option of seeding was not available
11	in the ground rules and planting of bareroot was not
12	chosen because, as I stated, we had the availability of
13	the larger container of black spruce.
14	Q. When was planting carried out on the
15	case study area?
16	A. Planting was carried out in May and
17	June of 1983 on all three blocks of the case study.
18	Q. All right. You have indicated that
19	in your review with the Board of the silvicultural
20	prescriptions, that tending was provided for if
21	necessary. What were the tending options that applied
22	in the case study area, what type of tending could have
23	been done?
24	A. The options that were available to us
25	were, as in site preparation, we could have block

1	tended; the second option was to manually tend with
2	saws or cutting hooks; the third option was to ground
3	apply herbicides with machinery; the fourth option was
4	to ground apply herbicides manually with back sprayers;
5	and the fifth option was to aerially apply herbicides
6	from fixed wing aircraft or helicopters.
7	Q. And what was in fact done?
8	A. The chosen treatment was to utilize
9	fixed wing aircraft and helicopters to apply the
10	herbicides from the air.
11	Q. And when did that occur?
12	A. That occurred in August I believe,
13	1982 sorry, July, 1982.
14	Q. Thank you. And then, Mr. Squires,
15	has a fifth-year stocking assessment been carried out
16	on the case study area?
17	A. Yes, fifth-year assessment has been
18	carried out on the case study area.
19	Q. And can you outline for the Board the
20	results of the assessment?
21	A. To do that I would like to go to
22	another overhead which is Figure or Table No. 1
23	found on page 39 of the witness statement.
24	MADAM CHAIR: Excuse me, Mr. Squires,

just a clarification. You said that you planted in

1	1983.
2	MR. SQUIRES: That is correct.
3	MADAM CHAIR: And the tending took place
4	a year before that, 1982?
5	MR. SQUIRES: That is correct.
6	MS. CRONK: Q. Mr. Squires, could I ask
7	you over the break this morning to check the dates of
8	tending again and just confirm for the Board when
9	tending took place on each block.
10	MR. SQUIRES: A. Will do. As I have
11	mentioned, this is Table 1 found on page 39 of the
12	statement of evidence. I would like to draw the
13	Board's attention to the left-hand column of this table
14	headed up type number.
15	Q. What does that column indicate, Mr.
16	Squires?
17	A. That column indicates the number of a
18	series of blocks that were planted on the Spruce River
19	Forest in 1983. There are a total of 19 blocks, or as
20	they call them here, types.
21	Among that 19 blocks there are three that
22	have stars beside them to the left. There is a No. 5
23	and a No. 6 and a No. 10. Those three numbers are the
24	same numbers of our case study blocks and are our case
25	study blocks.

I would next like to draw the Board's
attention to column No. 34 which is the per cent
stocking to desirable species. If we move down to type
or block 5 we will see that block 5 has 76 per cent
stocking, beneath that block 6 has 64 per cent stocking
and block 10 has 78 per cent stocking.

- Q. And can you relate those again to the minimum and objective stocking standards set out in the ground rules?
- A. Yes, I can. The minimum objective stocking or minimum standard stocking was 40 per cent. The objective stocking was 70 per cent.
- Q. What does the rest of the data on this table represent, Mr. Squires?
- A. The rest of the data starting with column 2 represents the area in hectares; the third column represents the number of plots that were surveyed to come up with the results; as I mentioned, the fourth column is the per cent stocking; the fifth column is not one which we rely much on, we put it in for interest, and it's an indication at fifth year of of how many of the trees meet free to grow standards, the planted trees; and the remaining sixth column is an indication of the range of trees that are on the site.
  - Q. What do the 19 type numbers indicate?

1	There are 19 items. You said that they relate to the
2	case study area. What do the others relate to?
3	A. They relate to 16 other blocks
4	similar to the three blocks of the case study, and in
5	total they come up to 726 hectares that were planted on
6	the Wolf River area in 1983.
7	Q. Can you relate then the results in
8	the case study area to the balance of the results on
9	the other areas treated in the Wolf River area in this
10	period?
11	A. Yes, I can. If you were to scan down
12	column 4 you will see that in all cases, with the
13	exception of block or type 14, they all met the minimum
14	objective stocking. Block 14 was 4.8 hectares and it
15	achieved 35 per cent stocking.
16	Q. Dealing just with block 14, I
17	understand that an interrogatory was delivered in
18	respect of it?
19	A. That is correct.
20	Q. All right. Could you perhaps go to
21	the interrogatories, please, and I am going to ask you
22	to explain to the Board why, in the instance of block
23	14, the only block on that table where minimum stocking
24	results were not achieved, what the reason for that is.
25	MS. CRONK: And I can refer the Board to

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1	Ministry of Environment Interrogatory No. 18.
2	Q. Just looking then, Mr. Squires, at
3	the information that has been provided in TABLE 1 and
4	looking down at the stocking levels indicated for each
5	of the blocks, block 14 is the only one that had less
6	than 40 per cent stocking. Can you explain to the
7	Board why that was the case?
8	MR. SQUIRES: A. Yes, I can. The
9	stocking was discovered to be low at the second-year
10	survival remeasurement and we knew it to be in the
11	vicinity of 35 per cent at that time, although we did
12	not carry out a stocking assessment as such, but at the
13	second-year survivial stage 25 per cent of the planted
14	trees were found to be in a dead or moribund condition,
15	that is almost dead, in that they were buried by grass
16	and raspberry.
17	Q. Thank you. You in a position to
18	illustrate to the Board what the conditions on the case
19	study blocks look like today?
20	A. I would like to go to a slide to
21	illustrate that, Madam Chair.
22	Q. Which one is that, Mr. Squires?
23	A. That will be slide No. 7.17. Could
24	we have the lights. I guess it's too light.
25	Q. I think they are down. That is about

1	as good as it gets, Mr. Squires. I am sorry, you would
2	like them on?
3	A. No, that will be no help. This slide
4	is a picture taken in 19 December of 1988 and it
5	illustrates the condition of the plantation on block 5.
6	The ground at the time of the photograph
7	had a half metre of snow, approximately one half feet.
8	The small black dots that are visible throughout the
9	photograph are the planted seedlings. These are some
10	residual spruce trees, black and white, that were
11	present at the time of the renewal effort on portions
12	of the stand and they were left in the final salvage
13	harvest because they were of unmerchantable sizes.
14	It illustrates the complete nature of the
15	planting, that trees were planted up to the crown range
16	of the existing trees on the site.
17	Q. What conclusions if any has the
18	company drawn regarding the activities carried out on
19	the case study area and the results evident to date?
20	A. We are quite convinced that the area
21	has satisfactorily regenerated and we are pleased with
22	that satisfactory regeneration, and I personally am
23	quite proud of the results we have been able to achieve
24	here in that these efforts were the second year into
25	our renewal effort and we had phased in at a more rapid

1	pace than was planned, in that the Ministry of Natural
2	Resources was phasing out under the terms of the FMA.
3	We were confident we could do well and we are satisfied
4	we have done well.
5	Q. All right. And, Mr. Squires, could I
6	ask you to go, if you would please, to page 37 of the
7	text of the case study, if you would please.
8	A. Page number?
9	Q. Page 37.
10	A. Page 37.
11	Q. Just to save time now if we could,
12	Mr. Squires, could you take a moment and review that
13	page and indicate whether it assists you in responding
14	to the question from Madam Chair as to the timing of
15	the tending activities in this case study?
16	A. Tending was in September, early
17	September. When I responded July and August, I was
18	thinking of the mechanical site preparation.
19	Q. And what year did it take place?
20	A. The site preparation took place
21	sorry, the mechanical tending took place in two years,
22	the first year on blocks 5 and 6 in 1984, and the
23	second year, block 10 in 1985.
24	Q. And when did the chemical site
25	preparation take place as opposed to the chemical

1	tending?
2	A. The chemical site preparations took
3	place in July of 1982.
4	Q. Thank you. And then finally, Mr.
5	Squires, could you outline for the Board please, again
6	just in a summary way, what you regard to be the most
7	important features of this case study to assist when
8	subsequent evidence is before the Board regarding the
9	specific activities that you have described?
10	A. Yes, I can. In summary then, I would
11	like to go down over the specific steps that have been
12	taken on the case study area.
13	I would start with describing the cover
14	type again. It is the spruce-fir hardwood or mixed
15	wood cover type containing balsam fir, black spruce,
16	white spruce, trembling aspen and white birch.
17	I described the access to the case study
18	area as via the Spruce River Highway, secondary highway
19	known as Highway 527 and the Wolf River Road.
20	I then described the harvesting
21	operations which took place in 1954-1956 and again in
22	1971-1975 and the 54-56 was for softwood, and 1971-1975
23	were primarily for hardwood veneer. 1982 there was a
24	third harvest operation carried out which utilized the
25	remaining merchantable stems of merchantable species,

commercial	species	on	the	site
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The first operations were carried out by horse and tractor with felling by buck saw and axe, the second one was carried out by chain saw felling and skidder forwarding to roadside, and the third operation was carried out similar.

The silvicultural method of choice on the area of the case study was clearcutting. The renewal prescriptions consisted of site preparing to re-arrange the slash and expose 800 planting chances per acre and to plant 800 black spruce per acre.

The site preparation involved chemical site preparation using 2,4-D. This was followed by two mechanical site preparation operations on one of the three blocks and a portion of the second, and by straight blading tractor on the remainder of the second and all of the third block.

Tending involving aerial application of glyphosate occurred on two blocks in 1984 and on a third block in 1985.

The fifth-year stocking assessment show that stocking to desirable softwoods for the three case study blocks was 76 per cent, 64 per cent, and 78 per cent.

And the final point that I make -- or

1 have made and would like to repeat is that 99 per cent 2 of the area planted of the Spruce River Forest in 1983 3 was successfully regenerated above the minimum standard 4 according to the 1988 fifth-year assessment. 5 0. Thank you, Mr. Squires. And one last 6 point. Will a representative of your company be 7 attending before the Board as part of the Industry's 8 tending panel to speak to the use of herbicides 9 described in this case study? Yes, there will be. 10 Α. 11 Q. All right, thank you. 12 Could we turn then, Mr. Murray, to you 13 next please and turning in that instance to case study 14 4E. 15 As I understand it, Mr. Murray, you will 16 be dealing with case study 4E, the case study prepared 17 by G.W. Martin Logging Limited; is that correct? 18 MR. MURRAY: A. That is correct. 19 Q. All right, thank you. And it 20 relates, as appears from the cover page, to the 21 tolerant hardwood cover type as Mr. Waddell indicated

0 4

22

23

24

25

A. That is also correct.

group; is that correct?

yesterday and specifically to the hard maple working

Q. All right. Well, could you explain

as your colleagues on the panel have in respect of
their companies, just in a general way at the outset
for the assistance of the Board, the nature of G.W.
Martin Logging Limited's operations in the area of the
undertaking at the time of the case study activities?

A. Yes. Madam Chair, Mr. Martel, G.W. Martin Lumber Limited at the time of the case study, which was 1986, was one of the -- was the largest hardwood and pine producer in Ontario. They operated in an area from north of Sault Ste. Marie to the Ottawa Valley and south to Tweed at the lower limit of the area of the undertaking.

They had seven sawmills, four veneer mills, two pallet mills, a flooring plant and a harvesting operations within the area of the undertaking. They operated on an area of over 7,000 square miles, an area of licence and timber access, and produced in their mills the equivalent of 150-million board feet of forest products.

The company was initially built up by G.W. Martin in the early 50s and through the succeeding years by the acquisition of other operating businesses to the point where prior to his death in 1984 they were about ready to acquire the assets of Weldwood Canada in Huntsville, the area of the case study.

1	Subsequently, following the fatality, the
2	operation was sold off by the family. They decided to
3	divest themselves of the forest industry and the
4	companies were sold slowly '88 and '89. They are now
5	generally operating under other names.
6	Q. Before that divestiture took place,
7	Mr. Murray, did G.W. Martin Logging acquire Weldwood of
8	Canada Limited?
9	A. Yes. G.W. Martin acquired Weldwood
10	of Canada in August October of 1985.
11	Q. And where specifically is the case
12	study that you will be describing to the Board in
13	relation to the activities of G.W. Martin that you have
14	described?
15	A. I will indicate that on a map which I
16	shall get and I would ask the Board to refer to page 7,
17	Figure 4 of case study 4E.
18	I am afraid the spot that shows the case
19	study is a very small spot over here. It's in an area
20	just north of Huntsville and Huntsville, as you will
21	remember, is about 240 kilometres north of Toronto.
22	It's adjacent to Algonquin Park and is well located in
23	the Great Lakes/St. Lawrence Forest area.
24	Q. How far is the case study area from

Huntsville, Mr. Murray?

1	A. The case study area is about 32
2	kilometres from Huntsville. I would just like to refer
3	the Board, as I mentioned, to Figure 4, page 7.
4	This is an illustration of the
5	Bracebridge Crown Management Unit. The area outlined
6	in the cross-hatch or the dotted perimeter is in effect
7	the actual Bracebridge management unit and the
8	Bracebridge administrative district.
9	South River is at the north end of the
10	district and Gravenhurst is at the south. Huntsville
11	and the case study area are located with dots, the
12	upper dots showing the case study area, the lower dots
13	showing Huntsville and the sawmill of G.W. Martin.
14	Q. The sawmill of G.W. Martin is located
15	where?
16	A. It's located in Huntsville.
17	Q. And prior to the divestment of G.W.
18	Martin that you have described, were you employed by
19	that company, by G.W. Martin?
20	A. I was never employed by G.W. Martin.
21	Q. All right. What familiarity then do
22	you have, Mr. Murray, with the activities described in
23	this case study relating to the Huntsville area and
24	specifically the lands forming the part of the case
25	study?

1	A. well, I was employed by weldwood of
2	Canada from 1956 in Huntsville and prior to that I was
3	employed by the Ministry of Department of Lands and
4	Forests for a year as the unit manager in the area of
5	the case study. I spent 25 years in Huntsville in the
6	area of the case study and was responsible for almost
7	all of the activities that took place on that area
8	regarding forest activities.
9	Q. All right. And what was your role
10	with respect to the mill in Huntsville?
11	A. In 1982 I returned from Sault Ste.
12	Marie, where I had been fulfilling a function of plant
13	manager, to Huntsville and I was plant manager there
14	responsible for the sawmill, the flooring plant and the
15	forest operations as well.
16	Q. And how long have you been engaged in
17	your career, Mr. Murray, in forestry matters?
18	A. Well, I graduated in 1952 and I have
19	been engaged in forestry matters since then.
20	Q. And what proportion of that lengthy
21	career has been spent in the Huntsville area in
22	forestry matters?
23	A. 25 years.
24	Q. All right, thank you. And are you
25	currently engaged in the practice of forestry?

1	A. At the time of the sale of Weldwood
2	of Canada's hardwood division I took an early
3	retirement and formed a sole proprietorship, a
4	consulting business and I do part-time consulting
5	specializing in the Great Lakes/St. Lawrence area.
6	Q. In forestry matters?
7	A. Forestry matters.
8	Q. And what is the name of your firm?
9	A. Cambrian Forestry Service.
10	Q. All right. You have said several
11	times now that this case study is in the Great
12	Lakes/St. Lawrence Forest area.
13	MS. CRONK: Madam Chair, I am about to
14	move into the actual particulars of the case study.
15	What is the Board's pleasure as to the break this
16	morning?
17	MADAM CHAIR: Yes. Why don't we take our
18	morning break now, Ms. Cronk.
19	MS. CRONK: Thank you.
20	MADAM CHAIR: We are in the routine of
21	taking a morning break at 10 minutes after 10 or
22	thereabouts, and we will break for lunch at 12:00.
23	MS. CRONK: Thank you.
24	Recess taken at 10:05 a.m.
25	On resuming at 10:35 a.m.

1 MADAM CHAIR: Please be seated. 2 MS. CRONK: Q. Mr. Murray, before we took the break, I was about to ask you to deal with the 3 4 implications of this case study, being in the Great Lakes/St. Lawrence Forest region, and I should remind 5 6 you that the Board through other witnesses has heard a 7 considerable amount of evidence concerning the Great 8 Lakes/St. Lawrence Forest region. So with that in mind, would you simply 9 outline to the Board what features of that forest 10 11 region are relevant to this case study? MR. MURPHY: A. Yes. The Board is aware 12 13 of the area of the Great Lakes/St. Lawrence and I would just like to give a few points that would make it, as 14 15 Mr. Cronk says, relevant. 16 The environmental assessment document, 17 Exhibit 4, has defined the Great Lakes/St. Lawrence 18 region and they say that it is a broadly -- it's an 19 imaginary line that defines an area of forest stands or specie association and the fundamental factors 20 21 identifying the species association are the surficial 22 geology of the area, the soil type, climatic conditions 23 and drainage patterns. 24 The specific specie association 25 variations between the Great Lakes and the boreal is

1	that in the boreal the specie associations are
2	primarily spruce, black spruce, jack pine and a mixture
3	of aspen and white birch, softwood, mixed wood
4	associations. In the Great Lakes/St. Lawrence region,
5	it's the tolerant hardwood which is maple, yellow birch
6	and beech specie association and the red and white pine
7	specie association. Those are the two major
8	associations in the Great Lakes/St. Lawrence area.
9	It's a very indistinct line, the boundary
10	between these forest regions and, therefore, you have a
11	blending at the boundaries; significant area of
12	inter-mixture of the different specie associations.
13	There are, of course, other differences
14	as well beside the biological ones. The Great
15	Lakes/St. Lawrence forest region is an area that is

populated area per square mile than the boreal. It has a long history. It has has been settled for many -- for well over a hundred years and because of this it has an established road system developed in much of the area and as it has a road system and it has been populated, then man has been disturbing the area for many years as well.

very populated, as you can appreciate, much more

Harvesting has been going on in most of the Great Lakes/St. Lawrence forest region for well

1	over a hundred years and, finally, it does contain a
2	lot of private land as opposed to the boreal region and
3	private versus Crown land comparisons.

Q. And just dealing further with the distinctions between the Great Lakes/St. Lawrence forest region and the boreal forest, how would you describe the Great Lakes/St. Lawrence forest region in terms of predominance of management unit types?

A. Yes. The Great Lakes/St. Lawrence forest region is an area that is predominantly Crown management units as opposed to the FMA in the boreal. There are approximately 29 Crown management units in the area of the Great Lakes/St. Lawrence. There are portions of four company management units and there are portions of four forest management agreements also in the Great Lakes/St. Lawrence area.

About 30 per cent of the area - I didn't mention that before - about 30 per cent of the area is Crown -- is patented or free to grow land as opposed to 70 per cent Crown.

Within the Great Lakes/St. Lawrence, too, there are many small mills. As it is an area of Crown management units, supplying material from them, there are many small mills. There are over 300 -- somewhere in the range of 300 sawmills in the Great Lakes/St.

undertaking.

1	Lawrence area, but only 15 of them are what you would
2	call large mills. The bulk of them are very small
3	mills operated by small entrepreneurs, obtain their
4	logs from the Crown management units.
5	Within the Great Lakes area there area
6	also seven veneer mills, or there were at the time of
7	the case study, there are only five now I believe, and
8	there are five pulp mills, but these mills do not
9	pulp mills and veneer mills do not necessarily get all
10	their supply from the Great Lakes/St. Lawrence area.
11	Q. What proportion of the area of the
12	undertaking in your view, Mr. Murray, is representative
13	by the Great Lakes/St. Lawrence forest region?
14	A. The Great Lakes/St. Lawrence is about
15	30 per cent, about a third of the area of the

Q. All right. And within that forest region, how significant is the tolerant hardwood cover type?

A. The tolerant hardwood cover type is over 50 per cent of the Great Lakes/St. Lawrence region in total and within the tolerant hardwood, the maple working group - and the Board will recall the term working group and species association - the maple working group is approximately 77 per cent of the

1	tolerant hardwood working group tolerant cover type
2	excuse me. And in the maple working group, something
3	in the vicinity of 40 per cent of the maple is mature
4	to overmature material.
5	The next largest working group in the
6	Great Lakes/St. Lawrence is the white pine.
7	Q. Are you in a position, Mr. Murray, to
8	illustrate for the Board some of the features that you
9	have been describing about the Great Lakes/St. Lawrence
10	forest region?
11	A. Yes, I am. I'm going to use two
12	slides from the case study 4E. The first slide is
13	slide .21, it's also a photograph. It is Figure 3,
14	page 6.
15	Q. That's photo 2.1?
16	A. Photo 2.1, Figure 3, page 6 of the
17	case study. It is a schematic description of the area
18	of the case study. Just briefly, it's showing, as
19	identified at the top, the Sherborne land type and the
20	land type is a classification that is given by the
21	forester from the Ministry of the Natural Resources
22	research
23	Q. I'm sorry to interrupt, Mr. Murray.
24	Could you use the microphone, please.
25	A. Oh, I'm sorry. The Sherborne land

type is a type that has been defined by the Ministry of

Natural Resources' researchers to identify specific

types of site conditions.

I'm merely showing this to show the conditions I mentioned earlier to identify the Great Lakes/St. Lawrence, how they effected on this, this is a granite bedrock area. You can picture this as being part of the southern Ontario Algonquin Park area, if you wish. The bedrock, there is a loose porous soil over the surface of it. At the top of hill, of course, it will be quite dry and in this location you would find pine, oak and hemlock because those are species which adapt to that particular situation.

As you come further down the hill, this is on the left-hand side, the granite bedrock slope, you will have soils a little deeper and this is an ideal situation for maple and beech, upper dry slope.

Further down the hill or as the moisture moves down the hill you have a fresh slope as they call it, that is a definition of the moisture condition, and this is an ideal location for again maple and birch, they interact there. As you get further down the hill you hill you will have more yellow birch which is a moisture liking specie.

At the bottom you are in an area that is

more akin to that of the boreal where it is quite moist
and you'll have spruce enlarged and you'll actually
have the conditions similar to the Clay Belt in many
areas.

Then on the right-hand side, this is the flat area at the top, and it indicates that where much of the area in the case study is fairly flat you have got a good moisture condition and you have a fresh upland upper flat and maple, beech, birch are the primary species.

Q. What slide is this, Mr. Murray?

A. This is slide 2.2 and - I'm mixed up in these wires - this is slide 2.2. It is a photograph taken -- an aerial photograph taken in the area of Algonquin Park and I would like to point out to the Board that none of the photos and slides that I have are specifically on the case study, they are representative of the case study area and excellent examples of it, but not specifically on the case study.

This was taken in Algonquin Park - and I am pointing to the middle of the slide at the moment - this is an area of hardwood. There is another ridge to an area of hardwood. In the foreground is a moisture area where there is a mixture of yellow birch. The yellow birch will be darker and purply crowns and the

presentation?

1	softwood will be hemlock and probably spruce and you
2	can see the lower areas, and this is just more or less
3	a visual depiction of what you saw on that schematic.
4	Q. Thank you, Mr. Murray. Could you
5	explain to the Board, if you would please, first of all
6	how large the case study area is?
7	A. The case study area itself - in my
8	terminology I am using the term case study area which I
9	will depict to the Board shortly on an overhead - is an
LO	area of the operation of G.W. Martin in the summer of
1	1986.
.2	The case study I refer to specifically as
.3	the area within the case study area is a specific type
4	and it's the area on which the report is done. The
.5	case study area was an area was 459 hectares. This
.6	was the total operation of G.W. Martin at that location
.7	in 1986.
. 8	Q. And within the case study area then,
.9	how large is the case study?
20	A. The case study specifically was 125
21	hectares. It is identified as part of type 418 of the
22	FRI classification system.
23	Q. All right. Why in particular, Mr.
24	Murray, was this case study area selected for

1	A. The case study is an excellent
2	example of the predominant working group in the Great
3	Lakes/St. Lawrence area. It fulfilled the requirements
4	of the criteria for its location within a populated
5	area if you wish, and it had the age class and specie
6	distribution that was typical of a mature tolerant
7	hardwood maple working group.
8	Q. All right. Well, dealing then just
9	first with species distribution, could you describe to
10	the Board what species types were found in the case
11	study area?
12	A. Yes. And to do that I am going to
13	refer the Board to Table 1 in the case study 4E, that's
14	page 8, and it is the FRI data summary. The MOE
15	Interrogatory Question 11 that was evidenced as Exhibit
16	I believe 1104 spells this out.
17	MS. CRONK: For the record, Madam Chair,
18	MOE Interrogatory No. 11 is part of Exhibit 1104.
19	MR. MURRAY: This table is taken from the
20	case study and what we have is a depiction of the
21	actual FRI data and the operational cruise data. It's
22	a comparison; the FRI data is on the column on the
23	left, and the OPC operational cruise is on the right.
24	Without going into the details of the
25	parameters as defined in the interrogatory, the specie

distribution is a percentage of the stand and on the
upper part it can be seen that the hard maple in the
FRI was 50 per cent of the stand and in the OPC it was
60. The species throughout are generally speaking very
close, and what this confirmed was that the
operational confirmed that the FRI data was in effect a
fairly reliable and accurate basis. Therefore the
Ministry can assume that other stands that have the FRI
data will be very similar and accurate in their
presentation.

The stand characteristics at the lower section indicate the age, which is there (indicating), 140 years. This is based on a diameter type of thing, it is very difficult to determine the age of a hardwood tree with an increment bore.

Q. I am sorry, with which?

A. An increment bore. This is a method of determining tree ages by taking a sample of the core and it is very difficult in a hardwood to do that.

The height was estimated, stocking and site classes were determined as a result of field data that was done by FRI. Under the operational cruise, we just show N/A, non-applicable because basically it is the same thing.

Q. When was the operational cruise data

1	compiled?
2	A. The operational cruise was taken
3	was done by the Ministry's Bracebridge district in 1979
4	in preparation for their timber management planning
5	operating five-year operating plans.
6	Q. And are the species indicated in
7	Table 1 in your view representative of the species
8	distribution in fact present in the case study area?
9	A. Yes, yes.
10	Q. All right. And I'm sorry, just to
11	make sure that I am reading this correctly. Dealing
12	with the operational cruise data, when it indicates
13	percentage of the stand hard maple being 60 per cent,
14	what parameter is that discussing?
15	A. That's based on the basal area, a
16	term I will be describing very shortly to the Board.
17	Q. Is that a reflection of stocking?
18	A. It is a reflection of stocking,
19	that's correct.
20	Q. Thank you. Now, you have indicated,
21	Mr. Murray, that with reference to how you have defined
22	the case study area that it was related to the area of
23	G.W. Martin's operations in 1986.
24	Could you outline for the Board what time
25	frame is involved in the timber management activities

KOTT,	waddell, Gemmell	
Murra	y,Squires	
dr ex	(Cronk)	

1	described in this case study?
2	A. Yes. It was in 1986 that the
3	activities took place, in July, August of 1986, late
4	July and August of 1986.
5	Q. All of them, all of the activities?
6	A. All of the activities, that's
7	correct.
8	Q. All right. And then in a summary way
9	could you outline for the Board what the organizational
10	structure of G.W. Martin was at the time in 1986?
11	A. I just want to make one small
12	correction. When you said all of the activities, there
13	were some preliminary work done on road access in the
14	fall of 1985, but that was kind of a pre-survey type of
1.5	work.
16	Q. Fine.
17	A. As to the organizational structure of
18	G.W. Martin, yes, again I would like to refer the Board
19	to Figure 7 on page 17 and I do have an overhead of
20	that one as well.
21	This is the structure as it existed at
22	the time of the case study operation in 1986. It is a
23	fairly basic organizational structure, and the general
24	manager, which is located at the top box, chief
25	forester was not a resident in the Huntsville area, he

was at their head office but he did negotiate or inter-relate with the Ministry and gave direction to the operations.

Coming down to the Hunstville Division, we have a logging superintendent who was responsible for the operation on the case study area and he was — he had responsible to him four people, a road foreman, a cut—and—skid foreman, a haul foreman and a log purchaser.

The logging superintendent at the time of the case study was a new person that G.W. Martin had brought to the operation, but the four people who filled the other positions were ex-Weldwood of Canada employees with a total of over 120 years in experience.

The other point that I would like to make is that as this is a relatively small operation compared to those which the Board has been seeing in the boreal. The range of responsibilities between the four people in the foreman classification was very broad and you can have your road foreman actually performing a haul foreman's task and responsibility. These were their specific responsibilities, but they did interact and were all capable of doing any particular job at any time and the interaction was an important part of their pool of knowledge.

KOTT, M	addell, Gemmell
Murray	,Squires
dr ex	(Cronk)

Q. Thank you very much, Mr. Murray.

2	A. I would make one point too. As this
3	is located so close to Huntsville, 32 miles, it was a
4	commuter operation and there was no infracstructure

necessary for the operation people, they commuted from the vicinity of Hunstville.

Q. Could you describe then -- I'm sorry,
I will wait until you get the overhead off.

Could you describe then for the Board,

Mr. Murray, in general terms what the timber management
options were for this case study area?

A. Yes. The timber management options, and as the Board has heard in the past evidence there are three specific silvicultural systems available; there is the clearcut system, shelterwood which includes strip and uniform, and the selection system which also can be group and single. Three group trees, single tree.

The options available to the timber manager in this case of course, as this is on a Crown management unit and the G.W. Martin was operating under an Order-in-Council licence, the timber manager is a Crown employee and he is the timber management unit forester. He was guided by the ground rules or silvicultural rules and by that information included in

1	their silvicultural guidelines.
2	Q. Which guidelines are you referring
3	to, Mr. Murray?
4	A. These are the guidelines which have
5	been included in the MOE Interrogatory No. 1 which was
6	I believe Exhibit 1104 in Question No. 1.
7	Q. And just looking at that
8	interrogatory for the moment, please, could you explain
9	to the Board what it is that has been provided in terms
10	of case study 4E?
11	MS. CRONK: That, Madam Chairman, is the
12	first interrogatory in Exhibit 1104.
13	MR. MURRAY: Unfortunately the print is
14	very difficult to read. This is Table 10 from the
15	Bracebridge management unit and on the first page, it
16	is difficult to see, the left-hand column indicates
17	hard maple and the proposed working group is tolerant
18	hardwood and under the harvest it indicates the basic
19	information that guides the timber manager and I will
20	be describing that and I won't ask you to try and read
21	that difficult print.
22	MS. CRONK: Q. And what is Table 10
23	from?
24	MR. MURRAY: A. Table 10 is from the
25	timber management plan of the Bracebridge management

1 Unit.

Q. Did Table 10 entitled Algonquin

Region Silvicultural Guidelines apply to the case study

area?

A. Yes, they did. The information in that guideline, and also that would be available to the timber manager, indicates three criteria that are necessary to identify the proper system in use and these criteria: First, that it must be a maple working group; secondly, that there must be adequate advanced regeneration on the area; thirdly, that there must a good range of age classes in the area; and, fourthly, that there must be an adequate basal area of quality trees.

And I would like to describe for the Board - and I use the term basal area quality trees, I am sure the Board is familiar with both these terms - but just to refresh your memory, the term basal area is a term used in forestry to describe the stocking of the stand and it is in effect the cross-section of a tree measured in square feet and I will ask the Board's indulgence to allow me to use the Imperial as opposed to the metric system because it is all relevant to me only in the Imperial.

As an example, basal -- in a tree of 13

1/2 half inches would have the basal area of one square 1 2 foot, therefore, if there are 100 trees 13 1/3 inches 3 on an acre, it would have a basal area per acre of 100 4 square feet. 5 However, trees don't all grow -- become 6 13 1/2 inches and a range of diameters will help 7 explain something I am going to mention shortly. 8 It would take 180 -- approximately 180 9 trees one inch in diameter to give you a basal square 10 foot basal area. It would take 11 trees four inches in 11 diameter to give you one square foot of basal area, but 12 a 24-inch tree - and this is measured. I should have 13 said, diameter at breast height, the term you probably 14 are familiar with - that would give you a basal area of 15 3.14 square feet. So it's quite a range as you can 16 see. And the term basal area without definition or with regard to diameter is only a guide not a total 17 18 package. 19 The other point I mentioned was the 20 quality of tree and, again, this is a critical part of 21

the determination and the implementation of the silvicultural system, and I refer the Board to Table 2 on page 11 of case study 4E.

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Firstly, again this is a rather basic table and perhaps if you would refer -- go back to page

10, it is summarized at the top of that page. You will
note that there are four classes of trees, quality
classes of trees that run from A to D and the easiest
thing to say is that a class A tree is perfect and a
class D tree is alive, and that's about all you can say
for it, it's a poor quality tree with a large number of
visible and invisible defects.

Q. What then, Mr. Murray, were the management objectives for this case study area?

A. The management objectives were set by the timber management unit forester and what he was looking for was to establish an ideal forest for maximum quality growth.

As part of obtaining the ideal forest, he would be looking to and would intend to maintain an overstorey at all times with to all living trees, he would be looking for a 20-year cutting cycle, he would be looking to improve the quality of the trees in each ensuing cutting cycle, he would be looking for diameter, a desirable range of diameters that would allow the 20-year cutting cycle and he, of course, is looking at the potential use of other users of the area.

Q. Well, what system was in fact selected for this case study area?

A. The system selected was the selection

2	system, selection harvest management system,
3	silvicultural system.
4	Q. All right. And what do you mean when
5	you refer to the timber manager working towards an
6	ideal forest?
7	A. I think I can best describe that by
8	using first an overhead and then a slide. The overhead
9	I will use is Figure 5 from page 14 of the case study.
10	It is known as a J curve. I will put that slide up.
11	This is taken from Figure 5 in the case
12	study and it was developed by the Ministry of Natural
13	Resources researchers to give guidance to the timber
14	manager in the Great Lakes in the tolerant hardwood
15	region and basically what it indicates to us what there

17 Ideal Residual Stand Structure for Selection Management

should be in the ideal forest, and this is titled:

19 after treatment. So this is what ultimately the timber

manager is attempting to get, a range of diameters with

for a 20-year Cutting Cycle. The residual means after,

a good number of trees.

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What we have of course on the left-hand side is the number of trees per acre and indicating 10, 20, 30, 40, 50, 60; on the bottom Y are the two-inch diameter classes 4 1/2, 6 1/2, 10 1/2, et cetera, up to

22 1/2. And a graph like this is obtained by plotting
the number of trees by diameter class per acre. And
this is the ideal that the manager is looking to
attain. And I am going to put a slide on now.

Q. Just before you do that, Mr. Murray, with respect to this figure, Interrogatory No. 30 delivered by the Ministry of the Environment asked for an explanation as to how the ideal residual stand structure for selection management was determined and the rationale for choosing this structure. Can you assist the Board as to the response to that?

A. Well, yes, briefly. The rationale for developing it was based on research work which originated basically in Europe and was developed further by foresters -- research foresters of the United States Department of Agriculture in the area of the Great Lakes/St. Lawrence Forest region which les south of the border in their attempts to develop ideal growing criteria.

As management developed in Ontario local -- the Ontario Research Branch of the Ministry developed data from local information to attain a curve, the result of which you see based on local information. That basically is what I replied in the interrogatory.

1	There was another question too, another
2	interrogatory I believe that the Board might be
3	interested in, it was the Forests for Tomorrow
4	Interrogatory, I believe 30(a) which was submitted as
5	a - how do I call it - it was late in getting it in.
6	Q. Well, perhaps you could put the
7	interrogatories just in front of you then, Mr. Murray,
8	and explain to the Board what is contained in Forests
9	for Tomorrow what the nature of the question was in
10	Interrogatory No. 30 and then the responses provided to
11	30 and as supplemented in 30(a).
12	MS. CRONK: Sorry, Madam Chair, that is
13	Exhibit No. 1103.
14	
15	MS. MURPHY: Yes, just briefly. In
16	Exhibit 1000
17	MS. CRONK: Sorry, Mr. Murray.
18	MR. MARTEL: Interrogatory?
19	MS. CRONK: Interrogatory No. 30 from
20	Forests for Tomorrow and 30(a), Mr. Martel, in Exhibit
21	1003.
22	MR. MURRAY: Question 30 from Forests for
23	Tomorrow asked us to supply kindly provide a graph
24	showing the diameter distribution of the original stand
25	to the ideal. We were unable to at the time of the

1	interrogatory reply to it because we didn't have the
2	data from the Ministry and it was questionable as to
3	whether we could get it.
4	However, they have subsequently supplied
5	the data and we have replied with the 30(a)
6	interrogatory and if you refer to that, the graph
7	stated comparison of original stand structure, case
8	study 4E, FRI type 418, et cetera.
9	You will note there are two curves on
.0	that graph. The one similar to the overhead that you
.1	see is the ideal and the case study area graph is a
.2	series of straight lines joining circles. What this
.3	indicates is that the stand of the case study was not
. 4	ideal, as would be expected, but that it is a very good
.5	candidate for management purposes and this would
.6	reinforce the decision of the timber manager to apply
.7	the selection management system of course.
. 8	MS. CRONK: Q. Is it common or uncommon
.9	in this part of the area of the undertaking to achieve
0	the ideal residual stand structure depicted in Figure
1	5?
2	MR. MURRAY: A. It's uncommon to have a

stand that would originally appear as Figure 5. It takes several cutting cycles to reach that standard of ideal structure.

23

24

1	Q. And after treatment is it common or
2	uncommon to achieve that kind of a residual stand as
3	depicted in Figure 5?
4	A. It will again, as I will explain
5	shortly if I can by using a slide, I think I can just
6	explain to the Board. It will take a while.
7	Q. Thank you.
8	A. This is slide 3.2 and it's actually
9	Figure 6 page 15 in the case study.
10	What we have here is a schematic
1	depiction of a forest, an ideal forest and just to
12	understand basically what it is, we have on the left
.3	this is the basal area in square feet per acre running
4	up to zero to a hundred I believe it is. On the
.5	bottom is a graph of years. So what each of these bars
16	refers to is a year in the forest life.
.7	And the forest is a very dynamic entity,
18	it grows and each year growth is added to the trees or
.9	the area, and it has been determined by the researchers
20	of Ontario in the tolerant hardwood that they can
21	expect in a 20-year cutting cycle - and, as I
22	mentioned, that is the objective of the manager - in a
23	20-year cutting cycle they are going to put on 38
24	square feet of basal area in that 20-year period, and

so at the end of 20 years they will have reached a

1	level of very close to a hundred square feet of basal
2	area.
3	It would be actually 98 I guess in the
4	case, they started at 60 and they put on 38 square
5	feet.
6	Q. Is that per acre, Mr. Murray?
7	A. That's per acre, that's correct.
8	Then at the end of 20 years the unit forester will have
9	prescribed a harvest and they would take that 38 square
10	feet of growth and they would remove it as the harvest,
11	and you start back again, and this goes on in
12	perpetuity.
13	The idea of rotation, as you understand
14	it, is not exactly the same in the selection system.
15	The management unit forester would assume a level of
16	tree maturity, in the case of maple it generally is a
17	120 years, so you would have six of these in the life
L8	of a tree from its seedling to its harvesting point.
19	This is the ideal type of forest, the one that the
20	manager is attempting to attain.
21	Q. With that then in mind, Mr. Murray,
22	could you explain to the Board what the specific actual
23	objectives were for the case study area?
24	A. Yes. We have to talk about numbers
25	to get the objective. The unit forester was using the

guidelines that we previously mentioned, was given the option to set a range of basal area objectives and what he has done is this: He chose the residual basal area of trees four inches and up, the residual, that will be what is left after the harvest, between 60 and 80 square feet basal area per acre. The 60 of course was related to the graph you just saw, that was the objective that he's aiming for.

The class quality trees, I mentioned quality trees, these of course are the trees which will be useful for the mills and the quality is the objective, and so he's looking for a residual basal area of four inches and up or 40 to 60 square feet in that, again the range process. And finally his objective was all trees 10 inches and up, because this gives him an indication of what the harvest could well be in the future in the way of tree size, and that would be 50 to 60 square feet of basal area.

- Q. All right. Dealing with the 60 to 80 square feet basal area range, to what type of trees was that to apply?
  - A. That would apply to all trees.
  - Q. And the 40 to 60 square feet basal
- 24 area?
- 25 A. That applies only to quality class A

1	and	В	trees.
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- A. And the 50 to 60 is 10 inches and up
- at diameter breast height and that is to all trees.
  - Q. And can you help us, Mr. Murray, as to what role if any tree marking plays in this process of achieving objectives of this kind?
- A. Yes. The forest manager has to

  9 use -- to implement his objectives he has to use the

  10 tool of tree marking and I am sure the Board is

  11 familiar with this, it's the identification of trees

  12 with little dots that will being harvested.

The tree marker is going to follow the directions of the prescription from the timber management unit forester and we have in the case study referred - if you refer to page 38, Appendix 1 in the case study - this is a generic prescription to the tree markers and it identifies, the trees will be cut with yellow marker -- yellow paint, it identifies -- and I should mention too, that the Board -- this was an errata that was submitted, I assume the Board has the correct one, the correct one will have small squares marked around the series of numbers in the appendix.

MS. CRONK: Madam Chair, Exhibit 1102 contains the errata to this table.

1	Q. These then are as appears from the
2	title the type of directions that are provided to tree
3	markers?
4	MR. SQUIRES: A. That's correct. They
5	would vary within it by forest, but basically these are
6	the types. And, as I say, they identify the priorities
7	to the markers, they identified the objectives in
8	numerical objectives.
9	Q. All right. Well, without going
10	through the specifics as appears from Appendix 1, can
11	you just describe to the Board what the consequences of
12	this tree marking function can be in achieving these
L3	types of objectives?
L 4	A. Yes. Again I think I can put some
15	three slides which I think will give a good indication
16	of this. These are referenced on page 30 of the case
L7	study, slides 7.1.
L8	This is slide 7.1. Again it's taken in
19	an area adjacent to the case study. It's one week
20	after harvesting and what can be seen, the mature trees
21	that are left, ranges of them, some slash from the
22	harvest, and some of the greenery will be from advanced
23	regeneration. It's difficult to tell from that

photograph specifically what it would be, but that is

one week following harvesting.

24

The second slide I have is slide 7.2.
This is two years after harvesting, and what we have
here is an opening which would be a result of a slight
modification that the markers had made. This would be
a group selection as opposed to a single tree. The
group selection in some cases because of the
circumstances of the tree they will take a little
larger opening. You can see in the centre of the slide
a stump and surrounding it is very good evidence of
regeneration. That will be almost all maple
regeneration and it's very prolific and there will be
literally hundreds of young trees developing there.
Two years they start to grow.
And this is slide 7 2 and this is some

years later - not the same site by the way - but here you can see the advanced regeneration coming along very well. The ground cover is growing rapidly. We have some other species that have come in, that's a balsam fir there, there undoubtedly will be some other species, it's typical, they could be beech, could be yellow birch, but this is the result of the harvest selection and the openings created in the cutting.

Q. And in each case, in each of those three photographs, Mr. Murray, what harvesting system was used?

Τ	A. These are all a result of the
2	selection harvesting system.
3	Q. All right, thank you. Just on that
4	slide, is there any maple in that photograph?
5	A. Yes, that is a maple tree right
6	there.
7	Q. You are pointing to the left?
8	A. Pointing to the left, a large
9	straight tree. I suspect that that is as well.
10	It's this is a good quality tree. From standing
11	here I would say it was a class A or B class tree.
12	The bulk of that regeneration is probably
13	young maple, it is difficult to tell, but that is what
14	it looks like, and it would be maple that at the time
15	of harvesting would probably have been eight or 10 feet
16	in height and it's now surging ahead quite well.
17	The other material, the other
18	regeneration at the time of harvest was probably just
19	seedling size.
20	Q. Thank you. Could you turn then to
21	the actual timber management activities in the area,
22	and once again as your colleagues have, could you deal
23	first with access and could you outline to the Board
24	please what the access circumstances were with respect
25	to this case study area?

1	A. Yes. I am going to use a series of
2	overheads which are components of a figure in the case
3	study, Figure 8 on page 19. It's a rather busy looking
4	exhibit and I can the figure and I think the
5	overheads will give a good appreciation of what I am
6	trying to say.
7	This is the first overlay I am placing.
8	This is a section of a timber management map from the
9	Bracebridge Management Unit, it's Bethune Township and
10	what we see here is a section of that map that
11	encompasses the case study area.
12	The area on the left with the
13	cross-hatching is private land, freehold land, in fact
14	property that was in effect held by Weldwood of Canada
15	prior to this case study. Up in the right-hand side is
16	also private land.
17	The blue areas are lakes and the green
18	area is identified as type 418 of which the case study
19	is a portion.
20	The classification systems, as we
21	mentioned before, are seen on that and the scale of one
22	kilometre down at the bottom gives some perspective to
23	the extent of the area.
24	Q. Is the green area all case study area
25	or just case study area type?

A. It's just case study area type, and my next overlay will define that.

What I have just placed on is an overlay of the actual, what I call the case study area. The cross-hatched red lines, and is surrounded by the red boundary was the area of the case study, was the area of timber activity by G.W. Martin. The actual case study is the area in green and covered by the cross-hatching.

Now, what I have now added is the access portion of it. These were the roads that were in existence or built for the case study or beyond the case study. The dark — the red road at the bottom of the overlay with the black boundary was a primary access road that had been constructed by Weldwood of Canada in previous years, '83 and '84.

The red lines throughout the area of the case study were tertiary roads that were constructed by G.W. Martin to access the case study and there were 4.8 kilometres of road built in that area. The black dots that you see are areas called landings for the harvesting operations.

And what I have added now is an overlay showing the options that were considered for construction of the tertiary access roads. And I

2	Q. I think it moved.
3	A. What I just added was the
4	identification of the options. There were three
5	four options in total; 8A, B, C and D. The options ar
6	considered in the area of the case study because of th
7	fact that it is an area although there are tertiary
8	roads, it is an area that is heavily used for
9	recreation, et cetera, plus there are many other
10	considerations.
11	And I would like to mention that I am
12	going to be also on the access panel which will be
13	presenting evidence very shortly and I will be using
14	these overlays to describe in more detail the reasons
15	for the options and why the options were selected.
16	Q. So just so that I understand at this
17	point then, Mr. Murray, the red hatched lines indicate
18	possible access road options or alternatives that were
19	considered but not selected?
20	A. That's correct, yes.
21	Q. And the full red lines indicate the
22	tertiary roads that were in fact the location of
23	which was actually selected and the roads as actually
24	built?
25	A. That's correct, yes.

should just add the final overlay.

1	Q. All right, thank you. What do G1
2	on the copy of Figure 8 in the case study that I am
3	looking at there is a G2, it's a little hard to see on
4	that.
5	A. That's correct, G2.
6	Q. What do they indicate?
7	A. Those were gravel locations of
8	gravel pits and, as I will be mentioning, you know,
9	it's very critical in constructing roads to find
.0	available gravel because it's necessary for the
.1	operations to have a gravel access road.
.2	Q. And were those gravel pits used to
.3	provide access to this case study area?
. 4	A. Yes, they were.
.5	Q. All right.
.6	MADAM CHAIR: Mr. Murray?
.7	MR. MURRAY: Yes.
. 8	MADAM CHAIR: Are you telling us that
.9	G.W. Martin was only required to build 4.8 kilometres
20	of tertiary roads and no secondary or primary roads for
21	access?
22	MR. MURRAY: That's correct, yes.
23	MS. CRONK: Madam Chair, Mr. Murray
24	indicated the various overlays that you see are
25	segregated parts of Figure 8 and because the colouring

1	on the overlays is slightly different, the hatching,
2	than Figure 8 we have photocopied and, if you wish, you
3	could have that as another exhibit, but I wanted the
4	parties to have it so they had a hard copy of what Mr.
5	Murray did.
6	MADAM CHAIR: I think the Board will use
7	the exhibit.
8	MS. CRONK: That is fine, thank you.
9	MR. MURRAY: Ms. Cronk, I have a slide as
LO	well which I would like to just put on, it's slide 8.1.
11	MS. CRONK: Q. I am sorry, what is that
12	number, Mr. Murray?
13	MR. MURRAY: A. Slide 8.1.
14	Q. I think that is actually 5.1, Mr.
15	Murray. Is that the one that you wish?
16	A. Yes, I am sorry, this is 5.1. It's
L7	referenced at page 20.
18	Q. Thank you.
19	A. This slide is a visual depiction of a
20	tertiary road that would be typical as that found on
21	the case study area. It's got a very basic
22	right-of-way clearance, it's gravelled and it's a very
23	low standard of road to access the timber, but it is a
24	gravelled all-weather road. Again I will be describing
25	some of the or the techniques and construction in

1	the access panel.
2	Q. Mr. Murray, is that road depicted in
3	this photograph representative or unrepresentative of
4	the tertiary roads actually built by G.W. Martin for
5	this case study?
6	A. It's very typical and, in effect,
7	could have been a picture taken right on the site and I
8	can guarantee that.
9	Q. All right, thank you. Could you turn
10	next then to harvest please, Mr. Murray, and indicate
11	for the Board, if you would please, what options were
12	available in terms of harvesting methods under this
13	system and what in fact was done?
14	A. The harvesting aspect of the case
15	study considered a three could consider the three
16	possible methods available; the tree-length, log-length
17	and full-tree system harvesting methods. In the Great
18	Lakes/St. Lawrence area generally speaking the log
19	length and the tree-length are the type used because of
20	the nature of selection management.
21	In the summer of the operation of
22	course took place in the summer of 1986, as I
23	mentioned, and the volume harvested approximated
24	394,000 board feet of sawlogs from that operation.

Q. When you say that operation, what do

1	you mean?
2	A. By that I mean from the case study,
3	I'm sorry, from the case study specifically as was
4	depicted in the slide the overlay, that was the
5	volume estimated to have come from that area.
6	Q. And as between the tree-length and
7	log-length methods, which was selected for the case
8	study area or were both used?
9	A. The tree-length method was selected.
10	The logging operation was in effect carried out by
11	articulated rubber tired skidders and manual felling
12	and the trees were manufactured into logs at the
13	landings. As I indicated the black dots were the
4	landing sites.
15	Q. We have heard from the other panel
16	members how much timber was harvested measured in cubic
17	metres from their case study areas. Can you help me as
. 8	to how I should equate that amount of board feet of
.9	timber to cubic metres, 394,000 board feet?
20	A. 394,000 board feet, that would be
21	2,168 cubic metres.
22	Q. And how was that timber used once
23	harvested?
24	A. The material all went to the G.W.
2.5	Martin mill in Huntsville where it was scaled and

sorted. The high quality veneer logs were taken to the
G.W. Martin veneer mill near North Bay, Rutherglen.
The other logs were processed at the G.W. Martin mill.
This mill was built originally in 1970 by Weldwood of
Canada and was a state-of-the-art hardwood
manufacturing facility at the time.

2.0

It had basically a double-cut -- hardwood double-cut band saw, a horizontal re-saw and Canadian trimmer and it was capable of producing between 30- and 35,000 board feet per shift or 50- to 60,000 thousand board feet of lumber per day and the mill operated on two shifts. And that again, Ms. Cronk, is 275 to 330 cubic metres which means nothing to me.

The mill itself in a year would use over 200,000 logs and in producing those logs they would have come from a selection area of over 11,000 acres, not all necessarily from Crown.

The sources of material for this mill were basically 5 per cent from private land, that was company owned land, 26 per cent from purchasewood — it's a very important part of the wood supply in that area as it is in much of the Great Lakes/St. Lawrence area — the purchasewood supply was 26 per cent, the Crown management unit that the case study took place on would take 28 per cent or supply approximately 28 per

cent, and the last element of component of supply would
be the Algonquin Forestry Authority where G.W. Martin
operated as a third party and that would be 41 per cent
of the total wood supply.

The products that would develop from the sawmill quite quickly were quality hardwood maple - maple being the primary specie - which would be turned into ultimately furniture, specialty items, pallets for flooring, chips developing from the -- byproducts would be sent to one of three pulp mills and actually to a shingle manufacturing plant, about 120 tonnes a day were produced in those, and the sawdust would burn in not only the G.W. Martin boilers but it was sold to be burned in boilers in a plant in North Bay as well.

The products developing are an important part of the function of the plant and the quality is very important and it is a concern that the quality of logs be maintained and produced in producing the products required and ultimately that is the objective of the timber management forester, to get a quality log available.

Q. When you make those last comments, Mr. Murray, are you describing conditions as they then were in 1986 or as they are today or both?

A. The conditions as they were in '86

Т	basically is what I was describing.
2	Q. All right. And are those still the
3	objectives today?
4	A. Yes, they are.
5	Q. Could you then next describe for the
6	Board, if you would please, what was done on this case
7	study area in terms of renewal activities?
8	A. The renewal - and again the reference
9	to Table 10 of the timber management plan - is that for
10	this type of silvicultural system, in a maple working
11	group renewal is natural regeneration, advanced
12	regeneration.
13	I know the Board has heard at some length
14	the silviculture or the silvics of various species.
15	Maple is one which is very tolerant as Mr. Waddell
16	explained and it is one in which the regeneration will
17	establish itself under heavy crown closure, will exist
18	for extended period of time and once the stand has
19	opened up, the regeneration will take off so to speak.
20	So the renewal portion of the operation was an integral
21	part of the harvesting operation.
22	Q. And are the provisions for natural
23	regeneration to which you referred contained in the
24	Algonquin region silvicultural guidelines?
25	A. Yes, they are, they indicate that.

Q. And with respect to the activity of tending, was any tending done on this case study area?

A. Tending, as it is understood in the sense of the boreal, not really. Tending is another situation where it is an integral part of the harvest in this particular case study area and, generally speaking, in much of the tolerant hardwood area.

The tending that actually took place could more appropriately be called perhaps a stand improvement project. The timber management unit forester in writing this prescription identified that many of the low grade trees would be removed and the Board will remember it is the objective to increase the quality of the trees. So by removing these low grade trees you are in effect creating an improvement or a tending operation.

These trees are removed during the course of the operation, they are felled manually by the cutters and hopefully there will be a market for them and one of the prime markets is firewood and the bulk of the firewood produced of these low grade trees in the case study area ended up in the fireplaces of Toronto, I would imagine. G.W. Martin made this material available to an entrepreneur who manufactured it into firewood and sold it in the Toronto area.

1	Q. Is there tending in the sense that
2	that term is recognized in the boreal forest, is there
3	tending of that kind carried out in the Great Lakes/St.
4	Lawrence Forest region?
5	A. There will be, yes. It will depend
6	on the silvicultural system applied and of course the
7	tolerant hardwood maple working group is not the only
8	system in the Great Lakes. In fact there are
9	conditions where even tolerant hardwoods will be
10	clearcut prescribed for clearcut for the
11	silvicultural system, and I believe the Board visited a
12	site visit of a clearcut hardwood area in the Minden
13	District on their site visit. In those cases there
14	would be tending required either chemical or manual.
15	Also in the shelterwood system of
16	harvest, and this is the one that's used primarily in
17	maple excuse me in pine, the shelterwood management
18	system, there could be tending required there to
19	control competing vegetation or to thin trees.
20	Q. Can you illustrate for the Board the
21	type of trees removed in the tending that's undertaken
22	under the selection system as applied in this case
23	study area?
24	A. I have a slide of an operation with a
25	class D tree.

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So this tree is a type of tree that was removed and what obviously it is going to do is by removing this large tree these good quality young maple trees in the eight to 10-inch diameter range in the background are going to accelerate in growth quite rapidly.

That tree that is depicted there would be skidded out and hopefully be utilized for firewood.

This is a good illustration of a cut area, the range of diameters can be seen and it is typical of a harvest operation in this selection system.

Q. Now, Mr. Murray, recognizing that this is not an FMA area but rather a Crown management unit area, are there fifth -- well, are there stocking assessment results fifth-year or otherwise available on

1	this area?
2	A. There are no fifth-year assessments
3	that I'am aware of. There are some results though and
4	I have an overhead which I could describe the results
5	on. The reason the
6	Q. First of all, what are the nature of
7	the results and then could you outline for the Board
8	what they are?
9	A. Well, the results were based they
.0	are based on what's called a post-cut cruise done by
.1	the Ministry of Natural Resources in the winter of 1989
2	and the results from that are depicted on page 32,
.3	Table 7 of the case study, and I do have an overhead
4	which I will put on.
.5	MS. CRONK: Again, Madam Chair, this
6	table was dealt with in the errata as well, so the
.7	Board may find it useful to have the errata before you
. 8	when you look at this table.
.9	MR. MURRAY: Table 7 in the case study.
0	The errata has been this is the correct one, it's
1	boxed off. What we have here and again I am going to
2	speak in terms of Imperial measurement and that's on
13	the right-hand side of the chart.
4	This was a comparison post-cut survey
5	results with treatment objectives on the case study

1	area. It is in basal area which is square feet. We
2	have on the left-hand side of the right-hand set of
3	figures an ideal and we have the actual in square feet
4	per acre four inches and up.
5	So the first meaningful numbers we have
6	under all trees, the objective was 60 to 80 square feet
7	of basal area and the actual attained was 67.5. So the
8	the actual was in excess of it is in the range of
9	most desirable.
.0	The class A and B trees and these other
.1	quality trees objective was 40 to 60 square feet and
.2	the actual was 39.1 which is slightly below but within
.3	an acceptable level of course of the objective.
4	And finally, all trees, and this is 10
.5	inches and up, the objective was 50 to 60 square feet
.6	and the actual was 49.2 square feet. Again slightly
.7	below but well within an acceptable level of
. 8	attainment.
.9	MS. CRONK: Q. And I'm sorry, when were
20	these post-harvest surveys taken or compiled?
21	MR. MURRAY: A. These were taken in the
22	winter of 1989, so that's about three years following
23	the actual undertaking the actual activity.
24	Q. In your

A. They were done by the Ministry at the

1	request of the company to supply them with some data
2	for this case study.
3	Q. All right. And in your experience,
4	Mr. Murray, looking at the results as reflected on
5	Table 7, would you expect them to change in any way in
6	the future with the passage of time?
7	A. Well, it is the objective of the
8	manager of course to improve the quality of the stand
9	and, yes, they will change. And I have a graph or
10	another overhead which I think I can describe for the
11	Board what will happen I think in the future.
12	Q. All right, thank you.
13	A. What I have placed on here - and this
14	is Figure 9 from the case study, I'm not sure which
15	page it's on.
16	MS. CRONK: That's page 34, Madam Chair.
17	MR. MURRAY: Page 34. This is another
18	schematic of a projected forest growth and this one is
19	particularly related to the case study. The
20	information from the post-cut cruise was applied and
21	the data to develop this projection was interpolated
22	from Ministry information.
23	So what in effect we are showing here
24	would be the projection of the manager for the future

of that particular forest. And if I can just indicate

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1	again on the left-hand side we have the basal area in
2	square feet, on the bottom the years, and each vertical
3	bar is a year of growth.
4	Now, what we have here where the line is,
5	if you will remember the residual 10 inches and up was
6	49.2 square feet, not quite the 50, however at the time
7	of the measurement it would have been just about 50
8	square feet. The growth for the 20-year period from
9	the time of cutting was interpolated from Ministry
10	information and it was felt that there would a growth
11	of approximately 33 square feet of basal area in that
12	20-year period. So that is shown on the top. Those
13	are supposed to indicate the growth.
L 4	MS. CRONK: Q. And if I could just stop
15	you there for a moment, Mr. Murray. Who prepared this
L 6	schematic?
L7	MR. MURRAY: A. I prepared it for the
18	case study.
19	Q. Right. And when you said that the
20	information contained in Figure 9 was interpolated from
21	the post-cut cruise data provided by the MNR, who did
22	that interpolation?
23	A. I did the interpolation on it, yes.

saying you expect will occur at the end of 20 years

Q. All right. And what then are you

1	after	the	harvesting	activity	on	this	land?
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years will be another harvest and we can only expect that the timber manager at the time will project harvest in square feet of 22, something less than that full growth because it will be his objective to try and bring that forest stand to the normal ideal situation.

And because of the fact that the stand was reasonably close to normal in the original status, it now is reasonable to expect that you can see 20-year cut and they will harvest 22 square feet. And that will bring it down from approximately 82 back to the 60 again.

So at the end of the next cutting cycle, which will be 2016 is it or something in there, you will have a stand which will have the ideal objective of 60 square feet and it will be free to grow then for the next 20 years at the projected 38 square feet and this would happen then on and on.

The only difference, these numbers don't indicate of course that the quality will be improving. Each year, each succeeding harvest the quality of the trees will improve as they remove more low grade and the higher grade trees will put on the annual growth.

Q. On what do you base your view, Mr. Murray, that in the term of the first cutting cycle,

1	the first 20-year period, that the basal area growth
2	will be 33 square feet?
3	A. That's based on, as I say, an
4	interpolation from Ministry information. They have
5	included - and one of the references in the case study
6	was a manual for timber marking in the Algonquin Park
7	area - and they included a series of these stocking
8	development projections from 30 square foot basal area
9	up to the 60, and this 33 square foot is an
10	interpolation of that information, assuming that it was
11	a projection that could be used that way, which it was
12	as far as I was concerned.
13	Q. All right. And dealing with
14	generally the expectation as to achieving objectives of
15	the desired residual basal area for an area treated in
16	this fashion, could I ask you to go to Forests for
17	Tomorrow Interrogatory No. 32 which has been filed with
18	the Board, and could you explain please the information
19	contained in the response to that interrogatory, the
20	nature of the inquiry and then the response?
21	The very last one in the exhibit, Mr.
22	Murray, Forests for Tomorrow, 32.
23	A. Yes. This exhibit, Question 32
24	asked:

"How often are the objectives of the

1	residual basal area met?"
2	And the reply was
3	"And what amount of the area does the
4	company harvest by the selection method
5	and what percentage of this is the total
6	harvest."
7	The reply was that:
8	"To get an answer to this I had to
9	contact the timber management manager at
10	the Bracebridge Crown management unit and
11	he indicated that they reach the residual
12	basal area objectives 100 per cent of the
13	time with an error of plus or minus 10
14	per cent."
15	And we also indicated in the answer that:
16	"90 per cent of the harvest would be by
17	this selection system, and that is also
18	the approximate percentage of the total
19	harvest."
20	Q. All right. And then finally, Mr.
21	Murray, with respect to the result data that is
22	available with respect to the case study area, can you
23	illustrate for the Board what the current conditions
24	are on the case study area?
25	A. Yes. I would do that with several

2.4

slides. I have two slides I think that can indicate
that probably the best. Slide 9.3 referenced on page
3

This is slide 9.3 on page 32. What this is, is taken two years after harvesting and it's a stump in the middle, a maple stump, and what you see around it is again advanced regeneration that has shot ahead and it is moving ahead. The young trees such as the one on the left would have been there and would have been very similar at the time of harvesting, but the leaf outgrowth is significantly more than it would have been.

Each succeeding year the trees put out more leaves and that is what contributes to their rapid growth at the time. So that is a very typical type of illustration of a cut area several years after harvesting.

My next slide is slide 3.2 and I believe it is referenced on page 10. This is an aerial view, again this was taken in Algonquin Park in an area that would be very similar to the case study. It is taken two years after harvesting. Summer photograph of a tolerant hardwood working group. It is very difficult to tell that it has been harvested at all. I think I would suspect that these small openings here were

1	caused by tree removal of the trees in a kind of a
2	group selection package, but generally it is a very
3	uniform appearance and I feel that, you know,
4	aesthetically it looks quite well from here anyhow.
5	Q. And how many years after harvesting
6	was that taken?
7	A. That was taken two years after
8	harvesting.
9	Q. Then finally, Mr. Murray, would you
10	outline for the Board you don't need the slides any
11	more, Mr. Murray?
12	A. No.
13	Q. All right, thank you. Could you
14	outline for the Board, if you would please, what
15	conclusions, if any, you feel should be based on this
16	case study or what observations would you wish to
17	provide to the Board about it?
18	A. Well, I have three conclusions that I
19	would like to make. Firstly, it is difficult to
20	identify an area that's been cut even after a few years
21	and the area has an appearance of a natural forest.
22	There would be projected an economically viable harvest
23	in another 20 years on the selection system, and that
24	the selection system using tree marking has been
25	successful in obtaining the objectives would be, I

1.0

think,	the	conclusions	I	would	draw.
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- Q. And what in your view are the significant features of this case study that in your view it would be useful to keep in mind as subsequent evidence is heard?
- A. Firstly, it is the Great Lakes/St.

  Lawrence area. This case study is the only example of harvesting in the Great Lakes/St. Lawrence area. There were many small operators who do operate within that area because it is primarily on Crown management units and is the example of that being done and, therefore, since it is on Crown management units they are Crown foresters who are responsible for the management and tending and renewal and, in effect, responsible for everything except the harvesting themselves.

It is the maple working group which is a significant portion of the tolerant hardwood area, that's important to remember. The existing roads — the network of existing roads is there, because of the time period there is a good infrastructure of roads. It's close to a major population centre supplying — it supplies work to people in the tourist areas and in the remoter areas of the Great Lakes/St. Lawrence area.

The selection management system was chosen, and I think that's an important point, and that

area and tree quality and regeneration advanced regeneration as a criteria, that is basal area of th quality of class trees would be an objective of a minimum of 40 square feet and that would be the objective.	1	the criteria in the selection system used both basal
quality of class trees would be an objective of a minimum of 40 square feet and that would be the	2	area and tree quality and regeneration advanced
5 minimum of 40 square feet and that would be the	3	regeneration as a criteria, that is basal area of the
	4	quality of class trees would be an objective of a
6 objective.	5	minimum of 40 square feet and that would be the
	6	objective.

The harvesting I think takes place generally on smaller type operations, generally tree-length, generally with rubber tired skidders and that the post-cut data indicated projects a substantial -- would substantiate meeting the treatment objectives of the timber manager and there will be another viable harvest cut in the next 20 years.

MADAM CHAIR: Mr. Murray, can you pinpoint a time when marking became as precise a system as it is in the evidence you have just shown us?

MR. MURRAY: Yes. Going back, the first marking that I was involved with took place in Algonquin Park and it was in the late 60s or early 70s.

It was, as you suggested, not as precise as it is now because the data and the examples that I showed with regard to the research work that had been done was only beginning at that time in Ontario. As it exists and it did exist on the case study, that quality of marking would have -- has been in place for 12 to 15

1 years I would suggest. 2 The quality of the tree markers has improved significantly in those years. It has now 3 become a profession. Generally they are technicians, 4 5 sometimes they are professional foresters who are 6 trained specifically and do take courses. I took a 7 course myself on tree marking. And the Ministry has been very helpful in orienting industry people in this 8 9 way too. 10 MS. CRONK: Q. Apart from your own 11 personal -- the first time that you personally had any 12 experience with tree marking, Mr. Murray, does the 13 answer you have just given to the Board apply to your 14 knowledge generally as to when tree marking became 15 significant? 16 What I'm really asking is: Are you aware 17 that any others were involved prior to yourself? 18 MR. MURRAY: A. Yes, there would have 19 been some tree marking done prior to that on private 20 land, the forestry management by Ministry, they were 21 using tree marking I suspect for the last 40 years or 22 so, although I'm not really clear on that. 23 But tree marking as a tool has been 24 used -- well, the Europeans used it a hundred years ago

and it's only in more recent years that it has

1	developed, firstly in the United States.
2	I do have had experience, I have seen
3	forests in the United States which were marked in the
4	30s, there is one, it is a tolerant hardwood in
5	northern Michigan. It's owned by the Henry Ford Motor
6	Company and was an excellent example of intensive
7	management that our people have used as the model in
8	some cases.
9	MS. CRONK: Thank you, madam Chair, Mr.
10	Martel. Do you wish to rise for lunch now?
11	There is of course one case study
12	remaining, but Mr. Murray's evidence, subject to any
13	questions from you, is complete at this stage.
14	MADAM CHAIR: We will rise for lunch. It
15	is ten after twelve, we will be back at 1:40.
16	MS. CRONK: 1:40. Thank you.
17	Luncheon recess taken at 12:10 p.m.
18	On resuming at 1:40 p.m.
19	MADAM CHAIR: Please be seated.
20	MS. CRONK: Q. Mr. Waddell, just before
21	we come to the last case study, there are two other
22	matters to which I would like to return.
23	Mr. Roll, if I could, could I ask you to
24	go please to Interrogatory No. 5 filed by Forests for
25	Tomorrow, which is part of Exhibit 1103, Madam Chair.

1	This interrogatory, as I understand it,
2	pertains to your case study, Mr. Roll; is that correct,
3	or your company's case study?
4	MR. ROLL: A. Yes, it is.
5	Q. And it relates to years of experience
6	that a forester had with respect to the silvicultural
7	prescriptions discussed in the case study. Can you
8	tell me first; who is the forester referred to in this
9	answer?
10	A. The forester referred to in this
11	answer is Murray Ferguson.
12	Q. All right. And will Mr. Ferguson be
13	testifying on any of the Industry panels that are
14	forthcoming?
15	A. Yes, he will, he will be testifying
16	on the renewal and on the protection panels.
17	Q. All right, thank you very much. And
18	then one further matter of clarification. This
19	question is directed to you, Mr. Squires.
20	You will recall a discussion this morning
21	of the responsibility for renewal activities in the
22	area of the Spruce River Forest limits both with
23	respect to freehold lands and company licensed areas.
24	Who has responsibility for renewal
25	activities on Abitibi-Price's freehold lands in the

	di ex (cronx)
1	area of the Spruce River Forest?
2	MR. SQUIRES: A. Abitibi-Price has the
3	responsibility for renewal on its freehold lands.
4	Q. And who has responsibility for the
5	renewal activities on company licensed areas?
6	A. On company licensed areas the
7	Ministry of Natural Resources has responsibility for
8	renewal.
9	Q. And when you made your observations
10	this morning on a comparative basis of the degree of
11	renewal on FMA areas opposed to other areas, what areas
12	were you comparing?
13	A. I was comparing the FMA area with
14	non-FMA Crown licences under the jurisdiction of
15	Abitibi-Price.
16	Q. Thank you very much.
17	Mr. Waddell, then could we turn to the
18	last case study if we could, case study 4B, and I

Q. And it pertains, as I recall your introductory remarks to the Board, to the jack pine/aspen upland mixed wood cover type; is that correct?

understand that that has been prepared by your company

MR. WADDELL: A. That's correct.

E.B. Eddy Forest Products Limited; is that correct?

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1	A. Yes, it is.
2	Q. All right.
3	MS. CRONK: Madam Chair, we have prepared
4	a photocopy of certain of the slides and overheads that
5	Mr. Waddell will be using. Three of these are not new
6	and are based I'm told - and you will hear Mr.
7	Waddell's evidence on this - on data contained in the
8	case study but they are depicted graphically in a
9	different fashion.
10	One is new and is not contained in the
11	case study. We would like to file as a package then
12	one overhead and three slides to be marked as one
13	exhibit. (handed)
14	MADAM CHAIR: That will be Exhibit 1111.
15	MS. CRONK: Thank you. And these have
16	been put together for the convenience of the Board,
17	Madam Chair, so they can go into your photograph binder
18	and in the case of the Board they are original pictures
19	of the slides and the overhead photographs of the
20	slides. (handed)
21	EXHIBIT NO. 1111: Hard copy photographs of three slides and one overhead re: Mr.
22	Waddell's evidence.
23	MS. CRONK: Q. Mr. Waddell, could you
24	begin then, if you would please, by describing to the
25	Board in general terms the nature of your company's

activities in the area involved in the case study. And
I would remain you of course that Mr. Boswell, the
president of your company has testified before the
Board and you should bear that in mind.

Having said that, could you provide a general description for the Board of the nature of your company's activities in the area of the case study?

MR. WADDELL: A. Yes. Madam Chair and Mr. Martel, E.B. Eddy Forest Products head office is in Ottawa and within the area of the undertaking our forestry operations are confined exclusively to northeastern Ontario.

We have two sawmills. The first of these sawmills is at Timmins with an annual production of about 50-million board feet of softwood lumber. Our second sawmill is at Nairn Centre which is nine miles east of Espanola. This is possibly the largest sawmill east of the Rocky Mountains and produces an annual output of lumber of around 185-million board feet which is enough to build about 18,000 average single dwelling homes per year.

The annual consumption of this sawmill at Nairn Centre is around a million cubic metres of softwood per year. I would like to show a slide, if you would, please.

1	This will be slide 5.1, case study 4B.
2	This is our Nairn Centre sawmill. We also have a pul
3	and paper mill at Espanola, this is a kraft pulp mill
4	and also produces fine papers. The average daily
5	output of kraft from this mill is about 10,070-tonnes
6	per day. The.

Slide here of the Espanola pulp mill is slide No. 5.2. There are 'about 1.6-million cunits of material used in this mill each year. That is made up roughly of 35 per cent hardwood and 65 per cent softwood. Jack pine is our preferred species both -- especially at our sawmills and is also highly desired in our pulp mill for the production of kraft and, since it is our desired species, our management efforts are directed towards favoring the renewal of jack pine whenever possible.

Our wood supply is obtained from two major sources; first of all purchased wood, and this is obtained from independent contractors and sawmills. For example, our pulp mill at Espanola, we purchase about 55 per cent of the wood going into that mill is purchased wood and at Nairn nearly 25 per cent of our wood is purchased.

The other major source of fiber is of course our forest management agreement areas and we

1 have three of these. Starting from the north - and I 2 will refer you to a map here in a moment - but starting 3 from the north we have the Pineland Forest management 4 agreement which was signed in 1982, moving south we 5 have the Upper Spanish Forest which was signed in 1980, 6 and just north of Espanola we have the Lower Spanish 7 Forest which was also signed at the same time in 1980. 8 Together these three forest management 9 agreement areas comprise about 14,000 square kilometres 10 or about 5,400 square miles of productive forest land. 11 And I would like to remained the board 12 again of the purpose of an FMA as defined in the actual 13 forest management agreement. The purpose of an FMA is 14 to ensure a continuous wood supply to the mill or mills 15 of the FMA holder and, secondly, to ensure that the 16 lands covered by a forest management agreement are 17 harvested and regenerated to provide continuous yields 18 on a sustained yield basis. 19 Q. Now, Mr. Waddell, as I understand it, 20 you are currently manager of Forest ReSources for E.B. 21 Eddy; is that correct? 22 Yes, it is. 23 And how long have you held that Q. 24 position, sir? 25 Α. Since 1978.

1	Q. And in general terms what are the
2	nature of your duties in that position?
3	A. Broadly I'm responsible for providing
4	the overall direction for the company's forest
5	management programs in Ontario and also for the
6	company's private lands.
7	Q. And what position did you hold with
8	E.B. Eddy prior to 1978?
9	A. Prior to that I was forest resources
10	superintendent.
11	Q. And for how long did you hold that
12	position?
13	A. From 1973 to 1978.
14	Q. And I understand that earlier in your
15	career you had experience in forestry with the Ministry
16	of Natural Resources?
17	A. Yes, I did.
18	Q. For how many years in total?
19	A. 14 years.
20	Q. All right. How long have you been
21	practising forestry in the area of the undertaking, Mr.
22	Waddell?
23	A. 34 plus.
24	Q. And where do you live, sir?
25	A. I live in Espanola, downtown

1	Espanola.
2	Q. Did you have any personal involvement
3	in the planning and implementation of the timber
4	management activities referred to in your case study?
5	A. Yes, through my staff we planned and
6	implemented the forest renewal and the tending part of
7	the forest management activities on the case study
8	area.
9	Q. Could you then outline for the Board,
10	if you would please, the location of the case study
11	area and explain to the Board the facilities in the
12	environs of the case study area?
13	A. Yes. I would like to refer to
14	Exhibit 1105 previously entered, and the E.B. Eddy's
15	three forest management agreements are located in the
16	area designated yellow towards the centre of the map
17	and they extend from roughly Espanola in the south to
18	Timmins in the north. The actual case study area
19	itself is located in the more or less centre and to the
20	west side of the three FMAs.
21	Could I have the other map, please, Bill?
22	I would like to enter this map at this time and it is
23	The Location of E.B. Eddy's FMAs and Case Study Area

within Northeastern Ontario.

24

25

Q. You can just stop there for a moment,

1	Mr. Waddell. Did you prepare this map or did you have
2	it prepared under your direction for use in your
3	evidence before the board?
4	A. The map was prepared under my
5	direction.
6	MS. CRONK: Could that be marked, Madam
7	Chair, as the next exhibit, please.
8	MADAM CHAIR: That will be Exhibit 1112.
9	Could I have the title, please?
LO	MS. CRONK: And could you read again for
11	the record, Mr. Waddell, the title of that map, please?
12	MR. WADDELL: Yes. The title of this map
13	is, The Location of E.B. Eddy's FMAs and Case Study
L 4	Area within Northeastern Ontario.
L5 L6	EXHIBIT NO. 1112: Map titled: The Location of E.B. Eddy's FMAs and Case Study Area within Northeastern Ontario.
17	MS. CRONK: Q. Would you just move that
L8	map up a bit further, Mr. Waddell, so the Board can see
L9	it more clearly, please.
20	MR. WADDELL: A. Yes. I would like to
21	give you an outline of what this map indicates.
22	Starting from the east side of the map,
23	the right-hand side is Highway 17, the main TransCanada
24	Highway. The City of Sudbury is located in the south
25	east corner and the Town of Espanola where our pulp

mill is. Just to the east of that is Nairn Centre
where our sawmill is.

. . .

The three forest management agreement areas, the Lower Spanish Forest is located in or coloured in blue, to the north of that in the deeper blue colour is the Upper Spanish Forest management agreement area, to the north of that is the Pineland Forest management agreement area.

The main access through this area is provided by Highway 144 which runs from Sudbury in the south through Gogama and to Timmins in the northeast corner, also Highway 101 which runs from Timmins through Foleyet over to Chapleau.

The main line of the CPR runs from

Sudbury up through Ramsey, which is our main base camp,

out to Chapleau and west to Winnipeg. The main line of

the CNR comes from the southeast corner up through

Gogama through Foleyet and again to Winnipeg.

There is a main road known as the West Branch Access
Road or the Camp 12 Road that leaves Highway 17 a few
miles west of Espanola, runs in a northerly direction
through our camp 12 area and through the study area,
continues north to Ramsey, north to Foleyet and the
junction of Highway 101, or when you are at Ramsey you

1	can go east, go up 144, or west to come out to
2	Chapleau. So the area is reasonably well accessed.
3	The case study area itself, as I
4	indicated, is in the camp 12 area and it is in the
5	Chapleau Ministry of Natural Resources district, the
6	northern region of the Ministry of Natural Resources.
7	It is in the company's west branch administrative
8	district.
9	Q. All right. Can you assist me, Mr.
10	Waddell, as to how far the case study area is from
11	let's start with Sudbury?
12	A. The case study area from Sudbury by
13	road is approximately 250 kilometres, about 125 air
14	miles.
15	Q. And how far is the case study area
16	from Espanola?
17	A. About 145 kilometres by road.
18	Q. And how large is the case study area
19	A. The case study area itself consists
20	of about 2,400 hectares in total area.
21	Q. And can you outline for the Board
22	what cover type characterizes the case study area?
23	A. Yes, and I think I would rather do
24	that with a slide.

Q. Perhaps you could indicate first, Mr.

1	Waddell, are there particular blocks or particular
2	stands comprized in the case study area that we should
3	keep in mind?
4	A. Yes. The case study blocks or the
5	case study itself consists of four distinct blocks and
6	they are a total of in area, a total of just under
7	28 hectares in size and within these eight blocks
8	pardon me, within these four blocks there are parts or
9	all of eight stands as identified by the FRI. So there
10	is four blocks and comprising parts of eight stands.
11	Q. And that is within the case study
12	area?
13	A. That is correct.
14	Q. All right.
15	A. I would like to show you now
16	photograph No. 2.2 which is taken in the case study
17	area. This was taken five years after the cut-over and
L8	I will try to outline for you on here as best I can the
L9	general areas of the four blocks.
20	The entire area is the case study area
21	but the four blocks that you will be hearing more about
22	are located more or less in this area here.
23	(indicating) This area to the
24	(Is this mike working? Yeah)
25	This area to the west of this road is

1	known	as	block	Α.

- Q. Sorry, Mr. Waddell, you are pointing to the very north of the photograph?
  - A. Yes, I'm . I'm pointing to the north of the photograph and to the west of this Ivy/Kelso Road as we call it. So block A is located in this area here to the west of the road. On the opposite side and a little to the south is block B. Block C is located in proximity to this small lake, and block D again is on the east side of the road and down more towards the south.

You can see from the general contours that this area is quite flat, it consists of deep sandy soils, it's fairly productive and at the time of harvesting consisted of a series of jack pine and aspen working groups all of which went together to make up the jack pine/aspen mixed wood upland cover type.

This is slide No. 2.3 in the case study.

This indicates what the stand looked like or the blocks looked like prior to harvesting. The stand in the background of the picture has not been harvested as it was part of an area of concern on a nearby lake.

This slide is not in the actual case study block itself, it was taken about a kilometre away, but it is very representative of what the case

study blocks looked like prior to harvesting.

You will note the stand in the background is made up basically of poplar, a little bit of birch and jack pine. The stands were formed in about 1910 from a natural wild fire that went through the area. So at the time of harvesting they were approximately — the stand was approximately 70 years of age.

In the foreground of course we have a landing of tree-length jack pine that has been harvested from the area in the foreground.

- Q. Why was this particular cover type selected for presentation to the Board, Mr. Waddell?
- A. There was several reasons why, Ms.

  Cronk. First of all, this particular cover type, the jack pine/aspen mixed wood upland cover type is a very important commercial cover type across nearly the entire area of the undertaking. It goes right from the Quebec border through to the Manitoba border and because it is so prevalent, we felt it important to have a case study in this particular cover type, and it is also very important to our company in that about 15 per cent of our forest management agreement areas are found in this particular cover type.

The second reason is that it gave us a good opportunity to compare two distinctive management

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this purpose.

1	systems, and by that I mean that we were able to
2	compare the system whereby the aspen canopy or poplar -
3	I use those terms interchangeably, aspen and poplar -
4	the aspen canopy was not disturbed on two blocks and we
5	attempted to plant jack pine and see how well it would
6	do underneath the aspen canopy. On the other two
7	blocks we completely removed the aspen canopy. So it
8	gave us an opportunity to see and measure comparative
9	results.
10	And the third reason that this area was
11	chosen was because it was done early after we signed
12	our FMAs, we were able to get fifth-year assessment
13	results and these are available for the interest of the
14	Board.
15	Q. All right. Thank you, Mr. Waddell.
16	You have indicated then that there were four blocks
17	comprising the case study. Could you describe those in
18	greater detail for the Board, please?
19	A. Yes, and I will using another map for

Madam Chair, I would like to enter this as the next exhibit. It is entitled: The Detailed View of the Case Study Area in Relation to Camp 12 Road Access.

Q. And again, Mr. Waddell, was this map

1	prepared either by you or on your behalf for the
2	purposes of your evidence before the Board?
3	A. It was prepared on my behalf.
4	MS. CRONK: And could that be the next
5	exhibit, Madam Chair.
6	MADAM CHAIR: Yes. That's Exhibit 1113.
7 8	EXHIBIT NO. 1113: Map entitled: The Detailed View of the Case Study Area in Relation to Camp 12 Road Access.
9	MR. WADDELL: This map illustrates the
10	specific case study area and it is just an enlarged map
11	of the very small square that you saw on the previous
12	exhibit, 1112.
13	If you remember, camp 12 was shown on the
14	previous map and it is located in the bottom corner of
15	this road system, the southwest corner. This road
16	starting in the south corner and heading up through the
17	centre of the map to the north end is known as our West
18	Branch or Camp 12 Road. It continues on south through
19	to Highway 17 and north to Ramsey. That is an
20	all-weather gravel road.
21	The road extending in a loop from just
22	south of camp 12, I think extends to the northeast and
23	then looping around again to the west and meeting the
24	Camp 12 Road is a secondary road built to access the
0.5	

case study area and it is, as I say, a secondary road

1	and it accessed the four case study blocks.
2	I would like to speak specifically now to
3	the four blocks. Starting in the north, we have study
4	block A, it was 7.5 hectares. Extending south of the
5	road and to the east of the road now we have study
6	block B, it was 5.7 hectares; continuing to the south,
7	study block C was 1.7 hectares and block D, the most
8	furthest south block, was 13 hectares. In total, 27.9
9	hectares.
10	Q. And what species characterized these
11	blocks or species variety of species?
12	A. As I indicated, there was eight
13	separate FRI forest cover types within these four
14	blocks and they consist entirely of pure jack pine,
15	pure poplar pure jack fine or pure poplar, but
16	mostly they were mixtures of jack pine and poplar which
L7	formed the cover types that we're talking about here,
18	the jack pine/aspen mixed wood cover type and they are
L9	very typical of this area.
20	Q. Thank you, Mr. Waddell.
21	MADAM CHAIR: Excuse me. Mr. Waddell,
22	you mentioned a few minutes ago an area of 2,400
23	hectares in size.
24	MR. WADDELL: Yes, I did.
25	MADAM CHAIR: That is the entire area in

1	which the blocks exist?
2	MR. WADDELL: That's correct. It would
3	more or less be the entire area around and within the
4	road system, but the actual blocks that we will be
5	referring to from now on consist of 27.9 hectares.
6	MR. MARTEL: Essentially, though, they
7	are basically the same a mixture of Pj or poplar?
8	MR. WADDELL: Yes, they are, Mr. Martel.
9	MS. CRONK: Q. And just on that point,
10	Mr. Waddell, could I ask you to turn to the Ministry of
11	the Environment's interrogatory No. 11 which has
12	already been filed with the Board. Have you got it?
13	MR. WADDELL: A. Yes, I have. Thank
14	you.
15	Q. This, you may recall, Mr. Waddell,
16	has been referred to earlier today. It was an
17	interrogatory that requested provision of a copy of the
18	FRI stand parameters for a number of case studies,
19	including case study 4B.
20	With reference to the information
21	provided regarding case study 4B - and I don't suggest
22	you need go through it unless you wish to - can you
23	indicate to the Board whether the information reflects
24	the various species found on these blocks and in the
25	case study area generally?

1	A. Yes, it does. As I indicated
2	previously, the stands both within the case study
3	blocks and within the case study area themselves were
4	basically mixtures of jack pine and poplar or in some
5	instances pure jack pine or pure poplar.
6	Q. All right. And I'm looking at Table
7	1 to this interrogatory, is this the data that pertains
8	to case study 4B?
9	A. Yes, it is.
.0	Q. If we look at the right-hand side of
.1	the table, can you explain what information is set out
.2	there just by type of information?
.3	A. It's a standard FRI inventory data
. 4	which indicates the stand competition, the age in
.5	years, the height in feet, the stocking and the site
.6	class for each of the eight stands contained within the
.7	case study area.
. 8	Q. Thank you. Can you indicate to the
.9	Board please, Mr. Waddell, over what time period the
20	timber management activities described in this case
21	study occurred?
22	A. Yes. The case study activities
13	occurred over a rather extended period. The Ivy/Kelso
24	Road which is the road to the east, the loop road which
15	hooks up to the main camp 12 road - the secondary road

now I'm referring to - that was started from both ends in the year 1975 and it was eventually hooked up in the centre four years later about 1979.

The harvest of the case study blocks itself was done in 1980, the site preparation was done in 1981, the tree planting was done in 1982, the first aerial chemical herbicide release was done in 1984, a follow-up herbicide release was done in '86, and fifth-year stocking assessments were done in 1987. So we had an extented period of activity in this area from 1975 through 'til 1987.

Q. Could you outline now, if you would then for the Board, Mr. Waddell, before you describe the particular activity themselves, what organizational structure applied at E.B. Eddy Forest Products Limited at the time these activities were undertaken?

A. Yes, and I'd best do this with a slide. This will be slide -- it's a slide of Figure 3 that appears on page 7 of the case study. It is an exact copy.

This slide depicts the portion of the current forestry division organization chart that has been in place now for several years. This was not the chart that was in place at the time the case study area was initiated. Prior to 1980, of course, we had no

forest renewal responsibilities and this chart has largely evolved to meet our additional forest management responsibilities that we took on when we signed the FMA.

As the Board has heard before, one of the most important and positive things that the FMA has accomplished is that it has successfully integrated harvesting and renewal, and you have seen how other companies have changed their organization to accommodate this and we have as well.

I'd like to point you to the top of the chart, the vice-president of forestry and wood products in Espanola. That is where the ultimate integration occurs, at that senior level. On the left-hand side of the chart -- excuse me, I will see if I can focus this a little better.

The left side of the chart is generally what we call the operations side or the wood production side. The right side is the management planning and forest renewal side and you will note the two managers report directly to the vice-president so that integration on both sides is accomplished at that level.

Coming down here we find the west branch district superintendent. He was the individual who was

responsible in the field for the actual day-to-day 1 implementation of both harvesting and forest renewal 2 3 and, again, this is the harvesting side and you see 4 that the superintendent has people here working 5 directly for him, the operations forester, and they 6 have the site preparation foreman, the tree plant 7 foreman and so forth reporting directly to him, who 8 reports to the superintendent. So on that particular 9 piece of real estate the superintendent is responsible 10 for all activities. 11 We also have on the forest management 12 side the management foresters and silviculturalists 13 working out of Espanola who provide technical direction 14 and assistance to the operations foresters who are 15 responsible for the actual forest renewal. 16 So we think that we have accomplished a 17 good level of integration between harvesting and 18 renewal. Q. And where, Mr. Waddell, on this 19 20 organizational chart is your own current position 21 described? 22 I am the Manager of forest resources. 23 Thank you. We heard evidence, Mr. 24 Waddell, as you heard yesterday from Mr. Roll

concerning the physical infrastructure that existed for

1	the purposes of the Canadian Pacific case study.
2	Was there a similar infrastructure in
3	place for the purposes of the activities on your case
4	study?
5	A. Yes, there was. I'm sorry, I'm going
6	to have to ask for a slide again.
7	Q. Which slide are you going to refer to
8	now, Mr. Waddell?
9	A. I am going to show slide 2.1. This
10	is an aerial view of our camp 12 on the West Branch
11	Road, and you heard from Mr. Roll of CP yesterday who
12	went into considerable detail in describing the
13	functions of the camp and I won't repeat that.
14	Ours is very similar. The camp was buil
15	in about 1970, it is a year-round camp. At the time o
16	the case study there were about a hundred year-round
17	employees working out of this camp, now it's closer to
18	110. That number increases significantly in the summe
19	months to as high as 170. The increment is due to the
20	tree planting operations, the site preparation
21	operations and the gravel construction pardon me,
22	the road construction and gravel crews that also work
23	out of this camp.
24	It is fully serviced. We have all
25	services there except the major repairs to any heavy

equipment is done at our on base camp at Ramsey 30
miles to the north. There are a great variety of jobs
in a camp such as this. There are heavy equipment
operators, cutters, skidder operators, skilled
mechanics, cooks, cookees, scalers, forest technicians,
clerks and so forth.

Q. How does the employment at Camp 12 compare with the overall employment of E.B. Eddy out of Espanola? Let's do it generally with respect to the forestry division of E.B. Eddy.

A. As I mentioned, there is about 110
year-round employees here and in the overall forestry
division, including our other camps and our people in
Espanola, there would be about 390 year-round jobs, and
then I will go through our mills and add it together
for you.

At our sawmill in Timmins there are about 85 year-round employees, at our mill at Nairn Centre about 250 and at our pulp mill in Espanola about 920. So in total we provide direct employment to about 1,650 people in northeastern Ontario on a year-round basis.

Obviously in addition to that, as I mentioned, we have a very large wood purchasing program and there are several hundred jobs directly related to this. These jobs would be truckers, mechanics, heavy

1	equipment operators and so forth that provide us with a
2	very valuable source of fiber.
3	Q. How is the wood from the case study
4	area used, Mr. Waddell?
5	A. I would like to again probably go to
6	the map for this. Referring again to Exhibit 1112.
7	Q. 1100 1112 you are quite right, I'm
8	sorry?
9	A. I will take you back to the Camp 12
10	area and the study area again. The wood from this area
11	was trucked on secondary and main primary road to
12	Ramsey and that would be a distance of 52 kilometres by
13	gravel road north to Ramsey.
14	At Ramsey we have a main rail head and
15	our wood is all loaded on the CPR main line and it is
16	railed from Ramsey down to Sudbury and then it is
17	switched onto the line from Sudbury to Sault Ste. Marie
18	and brought over to our Nairn Centre sawmill.
19	Now, this is a distance in total of about
20	265 kilometres which is a long haul even by northern
21	Ontario standards.
22	You may well wonder why we are taking
23	wood north to bring it south and that's a fair
24	question. We have an arrangement with the CPR that
25	allows us to obtain a fairly favourable freight rate

and it is cheaper for us to truck the wood 52

kilometres to Ramsey and then take it by unit train,
and by unit train I mean the CPR has dedicated one

train per day to our tree length material so that each
day, five days a week there is a unit train consisting
of 30 to 33 cars a day comes from Ramsey to our sawmill
at Nairn Centre. Each train would carry the equivalent
of a hundred -- pardon me, a thousand cunits which is
about to run the sawmill for the day. So that is why
the wood goes north to come south to come west.

The other question you might wonder is, why do we maintain this road to the south of Camp 12 in a good condition and there is two answers for that.

The the first of these is that we do have an operating camp located approximately 35 miles south of Camp 12 on this road and this is staffed by commuters on a daily basis who bus from the communities along the North Shore, Espanalo, Webbwood, McKerrow, Spanish and so forth and each day they take the bus and come up halfway to Camp 12 and carry out their operations. So wood from this area is trucked directly to our mill at Espanola because it's cheaper to do.

The second reason for maintaining this road in good condition is it provides access to Camp 12 for our employees and most of our employees come in on

Sunday night and go home on Friday. And these

employees at Camp 12 come from a wide range of small

communities from Thessalon on the west to Sturgeon

Falls on the east and a number of them, probably 50 to

for per cent of our employees at Camp 12, come from

reserves on the Spanish River and Manitoulin Island.

Q. Could you deal next then, Mr.

Waddell, with the timber management activities that
actually took place on the four blocks that you have
outlined to the Board and may I ask that you start
first with access. What were the options again and
what was done?

A. Well, because we are dealing here with just four small study blocks, the access to these blocks was provided by the one road that I indicated to you, the Kelso/Ivy secondary road that shows up on the other map. This provided all the access we required for harvesting these four blocks.

Within the overall case study area, of course, there had to be other roads built and these were primarily tertiary roads and we define a tertiary road as being a non-all-weather road. Normally there is not gravel put on it, although there may be at times but basically the balance of the area was accessed with tertiary roads.

1	I would like to show you a slide now.
2	It's slide No. 6.5 and it will illustrate to you the
3	Kelso/Ivy secondary road to give you some idea of the
4	standard of that road.
5	This simply indicates a loaded haul truck
6	on the Kelso/Ivy Road transporting the tree length
7	material from the forest to our rail head at Ramsey.
8	That is probably about 17 or 18 cunits of tree length
9	jack pine and spruce on that particular truck.
10	Q. And dealing next then with harvest,
11	Mr. Waddell, what were the options with respect to
12	these blocks and perhaps you could help me first, when
13	did harvesting occur?
14	A. Harvesting in the area was carried
15	out in 1980 and our options available to us were
16	threefold. First of all, we could have carried out a
L7	totally mechanical operation, meaning that the trees
18	would have been felled mechanically, grapple skidded
19	and skidded to the roadside for mechanical delimber.
20	The second option available was semi-mechanical, some
21	combination thereof and the third option and the one
22	that was selected was the conventional cut, limb and
23	skid, and I think the the Board is very familiar with
24	what I mean by that.

Q. What was harvested?

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1	A. The only species harvested from the
2	case study blocks and the case study areas themselves
3	were the softwoods; spruce, jack pine, balsam. The
4	aspen was not harvested and the reason that we did not
5	harvest aspen was simply a lack of a suitable market.
6	In 1980, although our kraft mill, as I
7	have alluded to, does use hardwood, it does use poplar
8	in 1980 our capacity was only 25,000 cunits at that
9	mill of poplar. This volume was easily supplied to us
10	from independent contractors who had private lands or
11	small government licences along the North Shore of Lake
12	Huron and these licences were much closer to our mill
13	than what this particular case study area was.
14	So we were able to meet our immediate
15	needs at that time from these independent sources
16	without taking the aspen from our own FMA.
17	Q. Now, a question was posed on this
18	aspect of the case study by Forests for Tomorrow, Mr.
19	Waddell, interrogatory No. 18 and the question was:
20	"What opportunities have been provided to
21	companies other than E.B. Eddy to utilize
22	the aspen?"
23	Can you respond to that question for the
24	Board, please?

A. Yes, if I may read the answer that we

Murray, Squires dr ex (Cronk)

1 responded to.

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"E.B. Eddy's timber management plans have 3 declared large areas of poplar as surplus 4 to the company's needs. Such areas are 5 available with the Minister's approval 6 for cutting by other firms. Several 7 companies have, through third-party 8 agreements, utilized limited quantities 9 of aspen from Eddy's FMA for specialty 10 products other than pulp. These 11 companies include Grant Forest Products, 12 Normick Perrron Inc. and Weldwood of 13 Canada. "

> I would like to add that although we still utilize -- or we are still utilize poplar from our area -- let me try that one again. Although we still use poplar in our mill, there is such a surplus of poplar pulpwood in northeastern Ontario that the same situation still continues to exist today and no one has a market for poplar pulpwood.

Q. Could you describe now for the Board, Mr. Waddell, if you would please, what the situation was with respect to renewal? What options were available in terms of renewal treatments for these four blocks?

			Α.	. 3	les,	I	wou	ld	like	to	re	fer	the	Board
now	to	Tabl	le 1,	App	pend	lix	1 0	f	case	stud	ly	4B	and	that's
loca	ted	lon	page	43	of	the	E.	в.	Eddy	cas	se	stu	dy.	

Table 1 is silvicultural specifications and regeneration standards of the upper Spanish forest management agreement groundrules between 1980 and 85. And it was these groundrules that were used by us to determine what renewal options were available to us and from which we could make a decision as to how we were going to treat the area.

As I previously mentioned to you, the stands in these study blocks could be made up of either poplar working group or jack pine working group, so that we have to look at each of these working groups in making the analysis of what options were available to us. So I would ask you on page 1, if you will go to the upper left-hand column where it says Inventory Working Group and it says Jack Pine, under Site Description, the first column is all site classes, richer sites with sandy loam and sandy clay loam.

Since the soil in these particular case study blocks did not fall into this category, we were not allowed to use these options. If you will drop down one block you will see that the next category is all site classes, poor sites with sand, loamy sand,

silty sand. This was the category that we assessed the 1 2 soil in the case study blocks to be, so we are now 3 slotted into the alternatives. Moving to the right, you will see method 4 5 of harvest is clearcut and propose working group was 6 jack pine as we wished to favour jack pine. 7 The next column indicates silvicultural 8 prescription available to us. No. 1 is site prepare 9 and seed; No. 2 is site prepare and plant; No. 3 is 10 seeding the site prep; and No. 4 is site prep for 11 natural regen; and 5 indicates that tending may be required at least once. I would like to indicate to 12 13 you that these alternatives are not necessarily in 14 order of priority. 15 The site -- or the renewal prescription 16 that we chose was No. 2, site prepare and plant. Now, 17 again, I emphasize this was for the stands that were in 18 the jack pipe working group. Q. Just before you leave that, Mr. 19 Waddell, what did the prescriptions provide with 20 21 respect to tending? 22 A. The prescriptions provided that tending may be required in the third year and again in 23 the fifth year if competition is unusually heavy. So 24

we had the option to aerial -- not necessarily aerial

but to herbicide on two occasions.

I would ask the Board if they would turn over now to page 3 of the same table. And now we will follow through the poplar working group to see what renewal alternatives were available to us, where the particular stands were in the poplar working group.

Again, the upper left-hand column, the present inventory working group is poplar; moving across to the right, it says all sites, method of harvest was clearcut. Now, under proposed working group you will see we had there three alternatives: poplar, jack pine and spruce. So we now had to decide what did we want to regenerate these poplar working groups back to; to poplar, to jack pine or spruce.

We decided that since we are already had a huge surplus of poplar on our FMA and indeed throughout the entire area of northeastern Ontario we did not want to regenerate them back to poplar. As jack pine was our preferred species, we opted to regenerate them to poplar rather than to -- pardon me, we opted to regenerate them to jack pine rather than to spruce.

So if you will move to the second column where it says Jack Pine, you will see that our silvicultural prescriptions -- we had the options,

1 first of all, to do site preparation through chemical, 2 prescribed burn and/or mechanical site prep with 3 planting. As a footnote, this will probably require 4 tending at the third and fifth year. 5 So this is the silvicultural prescription 6 that we opted for, was mechanical site preparation with planting. 7 8 Q. With respect to the provisions of the 9 silvicultural specifications regarding tending for both 10 the jack pine working group and the poplar working group you have just reviewed, was there any delineation 11 12 or requirement as to the type of tending that might be 13 undertaken or were there a number of options available 14 in that regard? 15 Α. There was no constriction as to the 16 type of tending that we could carry out, that was left 17 to the decision of the forest manager of the day. 18 Q. All right. Now, as I understand it, 19 Mr. Waddell, from all that you have said to the Board, these four blocks essentially were mixed wood sites of 20 21 either the jack pine or the poplar working groups; is 22 that correct? 23 Α. That's correct. 24 One of the questions posed by the Q. Ministry of the Environment in the interrogatories 25

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which they delivered questioned whether as a rule mixed wood sites shouldn't be aerially seeded. I refer you to Ministry of the Environment interrogatory No. 13 as filed with the Board, and what is your view on that proposition, that as a rule mixed wood sites should be aerially seeded?

A. If I can refer you to the answer we provided to the Ministry of Environment on that particular interrogatory, the gist of our argument was that as a rule mixed wood sites within E.B. Eddy's FMAs require planning in order to meet minimum stocking of softwood.

As indicated on page 5 our case study, we rejected seeding due to the probability - and I might say the high probability based on your experience - the high probability of competition for light and moisture from saplings arising from the residual aspen root systems and from our experience it is much -- you have a much better chance of achieving a successful plantation by planting on these sites than you do by aerial seeding because of the time lag in which your seeds must germinate and develop the same height as the planted stock is when you stick it in the ground.

So, no, we do not wish to aerial seed any of these rich upland sites.

1	Q. Do you recognize a general rule that
2	that should be done on mixed wood sites of this kind?
3	A. Certainly on the E.B. Eddy's FMAs we
4	do.
5	Q. I'm sorry, you do aerially seed?
6	A. Would you repeat the question please?
7	Q. Do you recognize a general rule that
8	on mixed wood sites of this kind they should be
9	aerially seed?
10	A. Absolutely not. My response was that
11	on the E.B. Eddy's FMAs on these reach upland sites the
12	general rule is we do not aerial seed, we plant.
13	Q. And in the poplar working group
14	according to the groundrules was seeding in any form an
15	option?
16	A. No, it was not. When the groundrules
17	were put together in 1980 by the foresters from E.B.
18	Eddy and the foresters from the Ministry of Natural
19	Resources it was recognized by both groups that aerial
20	seeding was not a viable alternative on these
21	particular sites. It is on the jack pine working group
22	but not on the poplar working group.
23	Q. Then dealing specifically with these
24	four blocks, Mr. Waddell, could you explain to the

Board precisely what was done with respect to renewal

on each of these blocks?

A. Yes. The four blocks were treated as follows: Blocks A and B were essentially treated the same way, scarification or site preparation — let me call it, site preparation was carried out in 1981 on blocks A and B and this consisted of a new technique, one that we had never used before anyway, and that was to completely eliminate the hardwood residuals that were left following the harvest when only the softwood had been removed. So we put bulldozers in and pushed over all of the standing hardwood and windrowed them.

I would like to show you a slide of that particular operation if you will, please. This is slide 7.3 of our case study.

This particular slide 7.3 is not on the immediate case study area, it is approximately probably 30 miles away, but it does represent very similar conditions, and what I would like to point out to the Board is the windrows of hardwoods that have been pushed aside.

Also in the background you see standing blocks of hardwood. Some of these hardwood blocks had the softwood component removed and some were pure hardwood which were not touched at all.

The reason that we did not push over all

1 of the hardwood blocks is we do not attempt to convert 2 pure hardwood stands into softwood, we are only working 3 here with certain stands that have a component of 4 softwood in them to start with, so we certainly are not 5 attempting to push over pure stands of hardwood. The 6 area that you see scarified was mixed wood stands of 7 jack pine and aspen. 8 In the foreground you will see the tops 9 of black spruce stands that have been left, and just to 10 the north of the foreground you will see where the 11 scarification appears to be in rows. That was done by 12 a row trencher and the reason we could do that was it 13 was only a very little amount of hardwood in this 14 particular area. As soon as you get into large amounts 15 of hardwood like in the centre of the photograph you cannot use a trenching device and you must get into 16 17 heavy tractor use. 18 So that slide illustrates the type of 19 what we call the heavy site preparation or windrowing that we started in 1981 in this particular case study. 20 21 Q. And how does that compare, Mr. 22 Waddell, with what was done by way of renewal treatments on blocks C and D? 23

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A. Again I would like to refer to a slide, and this is slide No. 6.3. This particular

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1	slide will show you what these mixed wood stands looked
2	like following cut-over when the softwood is not
3	removed. This is very typical.
4	As I said before, blocks A and B had this
5	sort of thing left standing in them when we finished
6	harvesting and we put in tractors to windrow the
7	residual hardwood.
8	Blocks C and D we left as control blocks
9	to measure the results and this was the way in which
10	block C and D were the way in which the silvicultural
11	practices had been done on the Upper Spanish Forest up
12	and to 1981. We were not satisfied with the results we
13	were getting and this is why we got into a new method
14	of site preparation to see if we could grow better
15	stands of jack pine on these rich upland sites.
16	So that is representative of what the
17	cut-over stands looked like and that looks or we
18	would then put bulldozers in there and scarify around
19	those residual poplars and plant.
20	Q. And is that what in fact was done on
21	both block C and D?
22	A. Yes. On block C and well, on all

four blocks the planting was carried out in 1981 --

pardon me, 1982. The scarification was done on all

four blocks in 1981, planting was done on all four

1 blocks in 1982, and then on -- we carried out aerial 2 chemical herbicide release using 2,4-D in 1984 and 3 again in 1986 on blocks A, B and D. The reason that 4 block C was not sprayed was because of its proximity to 5 a small lake and there was a buffer zone of no spray 6 established on that lake. 7 So I would just like to very quickly 8 summarize for you what was done. Blocks A and B 9 received heavy windrowing, complete removal of the 10 aspen canopy, planted the following year, and two 11 subsequent chemical sprays. 12 Blocks C and D we allowed the canopy to 13 remain in tact, worked the bulldozers in and around the 14 standing trees, planted it, and sprayed except for 15 block C where the buffer zone prohibited us from doing 16 so. 17 Why was tending undertaken in 1984 18 and 1986 on these three blocks, Mr. Waddell?

A. The tending was undertaken because our field assessment results indicated to us that the poplar was rebounding so quickly that it was interfering with the growth of the planted jack pine and we felt it was essential to carry out herbicide release programs.

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Q. Will there be a representative of

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1	your company testifying on the Industry's panel
2	concerning tending and protection?
3	A. Yes, there will.
4	Q. And will that witness be dealing with
5	the tending activities on this case study area?
6	A. He will.
7	Q. Are there, in respect of these four
8	blocks, assessment results available that you can
9	outline for the Board to assist it in understanding
10	what was done on these blocks?
11	A. Yes. As I said, we carried out
12	fifth-year stocking assessments in 1987 and these are
13	presented in full in our case study, but I have
14	summarized these and I would like to present them on a
15	slide, and this is a slide of the condensed Table 2
16	that you will find on page 26 of the case study.
17	If I could have the light.
18	Q. I am sorry, did you say that this
19	slide that you are now showing to the Board comes from
20	the data in Table 2?
21	A. Table 2, page 26.
22	MS. CRONK: And this for the record,
23	Madam Chair, is a slide contained in Exhibit 1111 which
2.4	has been provided to the Board

MR. WADDELL: The fine print down the

left-hand side that you may not be able to read says
softwood stocking per cent, so it's 20, 40, 60, 80, 100

per cent stocking. The numbers on top are the actual
stocking per cents; 72, 81, 55.

Block A is the yellow block and block B is the green block. These were the two blocks that were heavily site prepared, planted and received two chemical release.

And you will note that the stocking at the end of fifth year to softwood was 72 and 81 per cent. The blue and purple blocks, which are C and D, are the blocks that the conventional site preparation techniques of leaving the residual canopy in place, and you will note that the stocking — the softwood stocking on those two blocks is at 55 per cent.

The minimum objective -- the minimum stocking standards for the Upper Spanish Forest are 40 per cent. So that all four blocks readily met the stocking standards. The objective stocking for our FMA is 70 per cent. So blocks A and B, the heavily site prepared blocks, met the stocking -- the objective stocking standards, the block C and D did not.

MS. CRONK: Q. Apart from the fifth-year stocking assessment results, are there any other assessment results obtained recently with respect to

1	these blocks that you could outline to the Board?
2	MR. WADDELL: A. Yes. In 1988 we
3	carried out a special study in which we measured the
4	individual heights and the diameters of jack pine in
5	these four blocks to get a comparison. And what we did
6	then was calculate the average volume per stem and the
7	average volume per hectare so that we would have some
8	indication of how these blocks were comparing by volume
9	which, after all, is the critical analysis.
LO	And I would like to show you now a slide
11	of Figure 7 which is found on page 37 of the case
12	study. Again, down the left-hand side we have stem
13	volume in cubic metres per hectare.
4	I would like to remind you that the
.5	yellow and green blocks are the blocks that had the
.6	canopy totally removed; the two blocks on the right
.7	represent the conventional pre-FMA management
. 8	practices.
.9	This study was done six years after
20	planting. Block A had 3.06 cubic metres per hectare,
21	block B had 4.14 cubic metres per hectare, and both of
22	the conventional style blocks had less than 1 cubic
23	metre per hectare. A very startling and striking
2.4	difference in total volume per hectare.

Q. What conclusions if any has the

1 company drawn to date from these results, Mr. Waddell? 2 Well, we have concluded that the 3 excellent growth response in blocks A and B are 4 primarily due to two factors. First of all, because 5 blocks A and B received very thorough site preparation 6 there was more micro-sites available for planting and 7 in fact about 25 per cent more trees were planted on 8 blocks A and B per hectare than on C and D which had 9 the aspen canopy remaining. So we started out with 25 10 per cent more trees to begin with. 11 The second conclusion is that the stock 12 planted on blocks A and B obviously received full 13 sunlight and jack pine is a species that thrives in 14 full sunlight and it has obviously been able to take 15 advantage of the full sunlight situation and put on a 16 much better stem diameter, in fact the stems that we 17 measured on the full sunlight were nearly three times 18 the size of the stems in the partial shade. 19 Q. Can you assist the Board as to the 20 visual appearance of these blocks today? A. Yes. I have a series of five slides 21 22 that I would like to present now, and these are slides 9.1, 9.2, 9.3, 9.4 and 9.5. 23 24 This is slide No. 9.1 and it is block No. 25 C which was one of the blocks that was site prepared in

1	the old conventional manner; that is, allowing the
2	aspen canopy to remain and, as you can see, there are a
3	number of aspen in the background. The jack pine that
4	the gentleman is standing beside, while it does have a
5	decent heighth, it is very very thin in diameter and it
6	is not a very healthy looking stem for that size of a
7	tree and this, of course, is typical of jack pine, when
8	they are grown in semi-shade they will grow in heighth
9	but they put very little stem diameter on and they are
10	like a piece of wet spagetti.
11	These photos are all taken obviously on
12	the same day and they were taken in the fall of 1989
13	which is eight years pardon me, seven years after
14	planting.
15	This is block C, again light site
16	preparation and planting, and you will note again the
17	presence of the aspen in the background. The jack pine
18	in the foreground and to the left of the gentleman are
19	still fairly thin in diameter and not really too
20	vigorous looking. They are suffering from competition.
21	Q. Sorry, what block did you say that
22	was, Mr. Waddell?
23	A. I'm sorry, I said C but it's block D.
24	Thank you.

This block was aerial sprayed and these

1 trees are better than the jack pine, are more vigorous 2 than the previous slide which was block C where the 3 trees were not sprayed. Probably the overstorey here, 4 the large trees are dead from the aerial herbicide and 5 that is why these trees -- the young jack pine are 6 looking a little more vigorous, but they still are not 7 what we would consider to be a healthy looking young 8 plantation. 9 We now move to block A. This was one of 10 the two blocks that was heavily site prepared and 11 windrowed. You will note that the growth on these 12 trees is much more vigorous, the stem diameter is much 13 thicker and we now have the makings of a vigorous young 14 healthy plantation. 15 Q. Could I just stop you there for a 16 moment, Mr. Waddell. You said that these photos that 17 you were showing the Board were taken on the same day. 18 Was there any difference in point in time as to when 19 the planting on these blocks was done? A. No, Ms. Cronk, they were all done in 20 the same week of 1982. 21 22 Thank you. 23 I would move now to photo 9.4. This

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is block A -- no, it's block B, I'm sorry. It's block

B which was the other block which was heavily site

1	prepared and again you see an excellent, well stocked,
2	healthy, vigorous growing plantation.
3	The final slide I would like to show you
4	is again block A, it's an overview, and that was taken
5	the winter previous. It shows the block A in the
6	foreground and in the background is the uncut portion
7	of the remaining stand. It again shows how vigorous
8	this young jack pine plantation is and we have every
9	hope that it is going to be a high yielding stand in 50
10	to 55 years time.
11	Q. Mr. Waddell, could you go back please
12	to slide 9.4, the one immediately before this one. Can
13	you indicate how tall the jack pine tree is to the
14	right of the individual in the photograph?
15	A. To the right of the individual. The
16	individual with his hard hat on would be slightly over
17	6 foot.
18	Q. Having regard to the conditions of
19	these blocks today as indicated in these photos, has
20	the company drawn any particular conclusions with
21	respect to the type of renewal and tending treatments
22	carried out on these blocks?
23	A. Yes, we have. Because of the very
24	promising results that we have achieved in this case
25	study on blocks A and B, we have adopted this technique

1	now as a matter of course for similar sites and similar
2	type of stands and we have discontinued the other
3	method of site preparation, in fact we just
4	discontinued it two years after the case study was
5	initiated, we haven't done any of that since 1982 or
6	'83, and we routinely carry out this type of management
7	practice on these good mixed wood sites.
8	In fact I would like to show you now a
9	final slide which will illustrate the percentage of
10	area that we are now treating in this manner.
11	Q. What slide number is this, Mr.
12	Waddell?
13	A. This will be slide of Figure 8 which
14	is found on page 40 of the case study.
15	MS. CRONK: And this, Madam Chair, for
16	the record is part of Exhibit 1111.
17	MR. WADDELL: The blue graphs illustrate
18	the hectares on an annual basis that E.B. Eddy is site
19	preparing on the Upper and Lower Spanish.
20	So, for example, in 1984 we site prepared
21	about 12-, 1,300 hectares and the red blocks indicate
22	the method of heavy site preparation that we have just
23	illustrated to you in the case study.
24	In 1988 the heavy site prep represented
25	about 37 per cent of the total area site prepared by

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1	the company and as we have gained experience and
2	confidence in this method, you can see that the amount
3	of area that we are utilizing under this system has
4	increased.
5	MS. CRONK: Q. Well, what percentage of
6	lands were treated by what you have defined in this
7	slide as heavy site preparation in 1989 as opposed to
8	1988?
9	MR. WADDELL: A. In 1989 the percentage
10	treated by heavy site prep was 25 per cent of the total
11	site preparation effort by the company.
12	Q. On this FMA or generally?
13	A. On the Upper and Lower Spanish
14	Forests. In other words, if we were to extend that
15	graph for one more year our percentage the red would
16	be down somewhat from 1988 and this, of course, varies
17	by years with the particular sites that you encounter
18	that require treatment.
19	And I might add that looking ahead and
20	projecting into the 90s, we feel that we have now
21	the 25 per cent level is about the level that we will
22	achieve more or less for the next five years. We don't
23	expect it to expand beyond the 25 per cent level.
24	Q. Thank you, Mr. Waddell. Just while
25	you are up, Mr. Waddell, if I could ask you to go back,

1	if you would please, To exhibit 1112, the map that you
2	referred to earlier.
3	Are you finished with the slide, I am
4	sorry?
5	A. Yes, I am.
6	Q. And you had indicated earlier, and I
7	didn't get it all down, with reference to camp 12,
8	particular to this case study, the general area from
9	which the employees at camp 12 came.
10	Could you just review that again for me,
11	please?
12	A. Yes, most of our employees at camp 12
13	come from the communities along the, as we call it
14	locally, the north shore of Lake Huron starting from
15	Thessalon in the west, through the small communities of
16	Spanish, Massey, Webbwood, McKerrow, Espanola, Nairn
17	Centre, even a few from Sudbury, and extending right
18	through to Sturgeon Falls and east and, as I indicated,
19	possibly 50 to 60 per cent of our employees at camp 12
20	come from the Spanish River reserve or a couple of
21	reserves on Manitoulin Island.
22	Q. Thank you.
23	MR. MARTEL: Mr. Waddell, do you have any
24	idea how many native people you employ.
25	MR. WADDELL: In the woods, Mr. Martel?

1	MR. MARTEL: Yes.
2	MR. WADDELL: Status Indians?
3	MR. MARTEL: Yes, from the reserves.
4	MR. WADDELL: I can very easily get that
5	figure for you. I would believe it would be in the
6	vicinity of 80 to 90 full time.
7	MR. MARTEL: Do you have any in either at
8	Espanola or the Nairn Centre operation?
9	MR. WADDELL: I can't speak for Nairn
10	Centre and, of course, the only way that we know they
11	have to be status Indians or it's not recorded that
12	way on the payroll. I don't believe no, I really
13	can't answer that at the mill.
14	I know we did a little study on it in the
15	forestry division and I can get you the exact figures
16	if it's important. I believe it's in the vicinity of
17	75 to 85 in the forestry operation. I really can't
18	speak for the mill end of it.
19	MR. MARTEL: Fine, thank you.
20	MS. CRONK: The Board will perhaps
21	appreciate that there are certain constraints that
22	apply to the listing of information on payroll records.
23	Q. Mr. Waddell, could I ask you then
24	finally, if you would, sir, to outline for the Board

25 what in your view are the important features of this

case study and what in essence you have intended to 1 2 communicate to the Board about it for the purposes of 3 later evidence that they will hear concerning these timber management activities? 5 MR. WADDELL: A. Yes. This case study 6 involved the jack pine/aspen mixed wood upland cover 7 type in the Upper Spanish Forest of E.B. Eddy. This is 8 a very important cover type across the entire area of 9 the undertaking and it certainly is important to E.B. 10 Eddy as about 15 per cent by area of our FMAs fall into 11 this particular cover type. 12 These mixed wood stands consist primarily 13 of aspen and jack pine and are usually found on 14 productive sites and contain some of the highest 15 volumes in total that we have; however, the lack of a 16 suitable market for poplar has resulted in only the softwood being harvested and this results in a real 17 18 silvicultural renewal problem. Since jack pine is the preferred species 19 for our mills, it was and still is vital to our company 20 21 to maintain a very strong component of jack pine on 22 these very productive sites.

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Prior to 1981 regeneration on these sites consisted of leaving the residual aspen canopy in place, site preparing around the standing trees and

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planting without any herbicide practices being used. 1

> This case study documents a new technique whereby the aspen canopy is totally removed, planted to jack pine and aerial tending of approved herbicides carried out as required.

> Our assessments to date clearly show that the management practice of removing the poplar overstorey and chemically treating has resulted in two major benefits to the jack pine; first of all, we are achieving significantly higher fifth-year assessment results and we are also achieving significantly greater volumes per stem and obviously, therefore, greater volumes per hectare.

And we predict that at the next rotation the volumes per hectare of jack pine on these sites we will be able to harvest as much as 200 per cent higher volumes if our present growth results hold true.

As a result of our assessments to date, this technique is now used routinely by the company on these highly productive upland mixed wood sites across the E.B. Eddy's FMAs.

Q. In your view, Mr. Waddell, have the results indicated by the form of what you have called heavy site preparation on these sites, have the results of that technique ruled out the necessity for tending?

1	A. Definitely not. Heavy site
2	preparation such as we do actually, if anything,
3	stimulates the growth of young poplar, so there is no
4	way that we can grow jack pine on these sites in our
5	professional forester's opinion and not use tending.
6	Q. Is that your opinion, sir, as well?
7 ,	A. That is absolutely my opinion.
8	Q. Then finally, Mr. Waddell, as we
9	started with you yesterday afternoon, perhaps I could
10	ask you to conclude. And could you indicate to the
11	Board, if you would please, whether there are any
12	concluding observations or comments which the panel
13	wishes to make?
14	MS. CRONK: If, Madam Chair, you are
15	content to complete the evidence before your break.
16	MADAM CHAIR: Yes.
17	MS. CRONK: Thank you.
18	MR. WADDELL: Thank you, Madam Chair and
19	Mr. Martel. I would just like to make a few brief
20	comments here on behalf of our panel.
21	Despite the multitude of facts and
22	figures and data that we have probably inundated you
23	with here in the past day and a half, our message that
24	we would like to leave with you is basically very
25	simple.

First of all, within the area of the undertaking there are five major commercially important cover types and they are very distinct, one from each other. In the case studies we have presented one case study for each cover type. We have tried to convey to the Board the wide variety of forest management activities that the Industry carries out across the area of the undertaking.

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We have presented to you the results of our forest management activities and we have -- I believe that our results have demonstrated that Industry has capably and effectively planned and implemented its forest management activities.

In an area as vast as that of the area of the undertaking there are a wide variety and complexity of sites, species, market conditions, equipment and local factors. The local manager on each forest unit must consider and evaluate all of the foregoing and he must do this for each management activity whether it be harvesting, access, renewal or tending.

We have tried to illustrate to you through these case studies how the Industry managers in real life situations do assess and do evaluate all applicable factors and eventually we select and implement the option that, in our best judgment, our

1	best professional judgment will give the best results
2	for that particular site.
3	It is our opinion that it is absolutely
4	essential that forest managers, whether they be on
5	Crown management units or on forest management
6	agreements, be allowed to continue to retain this
7	flexibility of decision-making, so that in our
8	professional judgment we can make the best decision for
9	the site-specific situation.
10	Thank you.
11	MS. CRONK: Thank you, Mr. Waddell.
12	Madam Chair, Mr. Martel, that completes
13	the evidence-in-chief by way of overview with respect
14	to the case studies and, as I indicated at the outset,
15	each of the witnesses who has testified on this panel
16	will be re-attending before you and will be giving
17	evidence on one or more - in some instances more -
18	panels with respect to the specific activities.
19	So that concludes the evidence to be
20	presented on this issue at this time, and Mr. Cosman is
21	present with the witnesses to provide an overview with
22	respect to the planning issues.
23	We would propose to proceed with that
24	after your break.
25	MADAM CHAIR: All right, thank you, Ms.

1	Cronk. Did Mr. Cassidy want a break for some other
2	preparation?
3	MS. CRONK: He would like a short break,
4	as I understand it, between the planning overview and
5	the commencement of the access panel, but the planning
6	overview will take some little bit of time. So that is
7	to proceed next.
8	MADAM CHAIR: All right. We will have a
9	20-minute break then.
10	MS. CRONK: Okay.
11	MADAM CHAIR: Thank you very much, panel.
12	(panel withdraws)
13	Recess taken at 3:15 p.m.
14	On resuming at 3:45 p.m.
15	MADAM CHAIR: Please be seated.
16	MR. COSMAN: Good afternoon, Madam Chair,
17	Mr. Martel.
18	At the beginning of this hearing I
19	indicated on behalf of the forest industry associations
20	that they were generally in support of the class
21	environmental assessment as proposed by the Ministry of
22	Natural Resources.
23	Today we wish to give you an overview of
24	the changes to the MNR's proposed planning system and
25	to give you a preview of what Industry is proposing in

1 its evidence and in its terms and conditions.

Shortly I will be introducing to you Mr.

Michael Innes and Mr. Dale Munro who will be testifying
and who will explain how Industry's proposals differ

5 from those of the MNR.

We hope that you will find the proposals of Industry to be progressive and responsive to the needs of the public, as well as reasonable from an operational perspective. All of those are necessary, Madam Chair.

We are providing the planning overview at this time so you will have the planning context for the operations that will be subject of the subsequent panels in a month or so to come on behalf of Industry. We will not be describing today in detail the planning system that is proposed by Industry in that we do not intend to duplicate Panel 10, the planning evidence panel. What we will be doing, Mr. Innes and Mr. Munro will be doing is giving you, as I say, a preview of Panel 10 and they themselves will be returning as part of that panel to answer questions at that time that parties may have.

The purpose of today's panel is simply to provide an overview and I will not be longer than two hours and with your indulgence I would hope to complete

the evidence today so that the access panel may commence fresh tomorrow morning. I would think 5:30 would do it if my estimates, which are generally fairly accurate, by that experience.

Munro, you will recall that one of the counsel on Panel 2 asked if we were intending to call evidence on hiring practices and I said no, we were not because that was not part of the mandate of the Board in this environmental hearing. I just want to make it clear because I don't think I stated it at that time, that it is my understanding that the forest industry has nothing to be ashamed of in terms of its hiring practices, but I did not consider it appropriate nor do I consider it appropriate for other parties to delve into matters which are outside the Board's jurisdiction and which would, in effect, turn this hearing into a commission of public inquiry or a royal commission type hearing.

But in any event, the Class EA document and the Environmental Assessment Act provide the parameters of this hearing and all of our evidence, all of which has been delivered to all the parties by the end of January, will relate to those issues. Planning of forest industry activities is clearly before this

1	Board, as the Board itself has ordered and directed,
2	and I now turn to Mr. Munro and Mr. Innes in order that
3	they might give you a preview and an overview of our
4	planning evidence.
5	Perhaps I would ask the Board if they
6	have with them the witness statement for Panel 10. We
7	will not need the terms and conditions, but if you
8	would just turn to the witness statement for Panel 10,
9	if not, I will even manage without it. Thank you.
10	And perhaps, Madam Chair, even though it
11	is an overview the witnesses ought to be sworn.
12	MADAM CHAIR: Yes.
L3	MR. COSMAN: Thank you.
L 4	MICHAEL INNES,
15	<u>DALE MUNRO</u> , Sworn
L6	MR. COSMAN: Madam Chair, in the witness
L7	statement for Panel 10 I am going to just make a brief
18	reference to the curriculum vitae of the two witnesses
L9	and it is to be found at the very beginning right after
20	the summary which is sub (i) to sub (xi) and then you
21	will see (xii), page 12, you will see Michael Innes' CV
22	right at the very beginning of the witness statement.
23	It is just before you get into
24	MADAM CHAIR: Before the preamble? Mr.
25	Martel's copy doesn't have it.

1	MR. COSMAN: Oh, all right, let me just
2	make sure.
3	Discussion off the record.
4	MS. BLASTORAH: Madam Chair, I haven't
5	marked my copy, you can have it.
6	MADAM CHAIR: Thank you very much.
7	MR. COSMAN: (handed)
8	MADAM CHAIR: Thank you very much.
9	DIRECT EXAMINATION BY MR. COSMAN:
10	Q. Mr. Innes first. Mr. Innes, you are
11	Manager of forestry of Abitibi-Price Inc. and, as is
12	described, a company which has forest mill operations
13	in many parts of Ontario, eastern Canada and in
14	Manitoba?
15	MR. INNES: A. Yes, that is correct.
16	Q. Is your machine on?
17	A. It's on.
18	Q. You are a registered professional
19	forester and a graduate in forestry from the
20	Uninversity of Toronto, you also have a Master's Degree
21	in forest economics?
22	A. That's correct.
23	Q. You have experience as a research
24	officer with the federal government and you have also
25	worked with the Ministry of Natural Resources in a

Т	number of locations including northern Ontario?
2	A. Correct.
3	Q. And latterly you served as regional
4	forester for the northern region?
5	A. Correct.
6	Q. When was that, sir?
7	A. You are testing my memory, Mr.
8	Cosman, 1980 would have been the last year that I was
9	employed with the Ministry of Natural Resources.
10	Q. All right. And you have indicated
11	that you joined Abitibi-Price in 1980 and you recently
12	assumed the position that you've just described as
13	manager of forestry to the company?
14	A. Yes.
15	Q. And what are your responsibilities in
16	that position?
17	A. My primary responsibility is to
18	design and to implement forest policy across the
19	company's forestry operations.
20	Q. You are past President of the Ontario
21	Professional Foresters Association and a member of the
22	Canadian Institute of Forestry and you also hold some
23	graduate degrees in business administration in addition
24	to your degree in forestry?
25	A. Yes, that's correct.

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1	you will describe, as I understand it, and I will say
2	it for the record, an integrated resource plan system
3	for timber management and that is the description of
4	the new plan that you have prepared, the planning
5	system that is being proposed by Industry and which is
6	the subject of the evidence in Panel 10?
7	A. Yes, that's right.
8	MR. COSMAN: So perhaps that set of
9	overheads that illustrates that for the purposes of
10	this overview could be marked, Madam Chair, as the next
11	exhibit and I wonder if I provided copies, Madam
12	Chair, already to my friends and I would provide now
13	three copies to the Board.
14	MADAM CHAIR: That will be Exhibit 1114.
15	EXHIBIT NO. 1114: Set of overheads re an integrated resource plan system for timber
16	management.
17	
18	MR. COSMAN: In addition to that and in
19	relation to that and as part of the planning system
20	that you have prepared, you have prepared on three
21	pages a timetable for plan preparation. I wonder if
22	that timetable for plan preparation could be marked as
23	the next exhibit.
24	MADAM CHAIR: That's Exhibit 1115. What
25	are we calling that, Mr. Cosman?

1	MR. COSMAN: Timetable for plan
2	preparation, the Industry proposal.
3	EXHIBIT NO. 1115: Timetable for plan preparation, the Industry proposal.
4	
5	MR. COSMAN: Now, I am going to turn to
6	Mr. Innes and in a slightly different fashion from that
7	which the Board has had the experience of in the past,
8	I am going to ask Mr. Innes if he would take the Board
9	through the proposal, from time to time I will
10	intervene with questions and, Mr. Munro, where you
11	consider it appropriate, will also intervene but I
12	wonder if you could lead the discussion and describe
13	the overview of the planning system to the Board.
14	MR. INNES: Certainly, Mr. Cosman. Madam
15	Chair, Mr. Martel, before describing the forest
16	industry's proposed timber management planning system,
17	I would like to begin by providing the Board with an
18	appreciation of why we thought a change from the MNR
19	system was desirable. Perhaps if I could start that
20	way I will provide the background for what we have to
21	lay before you this afternoon.
22	Timber management planning for Crown
23	lands in Ontario is not something new to the forest
24	industry. Company foresters have been responsible for
25	the preparation of management plans for their company

1	management units for a long time. Furthermore, the
2	forest industry has been using the new Timber
3	Management Planning Manual since it appeared in
4	published form in 1986 and has gained considerable
5	experience in this application. As a matter of fact,
6	34 plans have been prepared under this new system.
7	However, it's fair to say that the
8	current system is not the same planning system the
9	Industry endorsed when the class environmental
10	assessment for timber management on Crown lands in
11	Ontario was first released in December of 1985. In
12	fact, it has been an evolving system as we have seen
13	over the last number of years.
14	Q. Certainly over the time that the
15	hearing has been conducted?
16	MR. INNES: A. Yes, that's quite true,
17	Mr. Cosman. It is also true to say that the system
18	works and there can be no doubt that following the MNR
19	system does produce results and, in fact, we think
20	there is a track record of success out there and I hope
21	you agree from the case histories that you saw
22	presented in the last day, that there certainly is a
23	methodology and, in fact, results at a ground level are

However, I stress that it is an evolving

achievable and are in fact being achieved.

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system and obviously any new system will have a few
bugs in it. In the Timber Management Planning Manual
for Crown Lands in Ontario is certainly no exception.
This is evidenced by the 41 changes made to the manual
since its inception in 1986.

Beyond the tests of workability provided at a field level, the MNR timber management planning system has undergone further scrutiny through the environmental assessment hearing process which has resulted in further changes beyond the 41 that are listed in the manual, and evidence of that would be the area of planning system which they are now working with and are passing on to the field foresters for implementation.

In other words, MNR is constantly changing its planning system to better respond to perceived needs. We, too, agree that it has very valid elements in it but it can be improved and that improvement, in fact, can be based on the experience that we have gone through over the number of years we have been working in timber management planning.

The Ontario forest industry is committed to the principle that planning is essential to the orderly management of forest based resources. Sound planning and modern implementation are essential to

measure progress towards complex society goals; there can no question about that. Furthermore, to the forest industry sound planning is just plain good business, it makes sense and we do it.

The MNR planning system is structurally unchanged from the pre-FMA days during which the Crown was responsible for the preparation of virtually all the forest management plans in the province with the exception of some of the company management units.

Times have changed, however. Now over 70 per cent of the licensed forest land in the province is managed by Industry under the authority of the forest management agreements. The forest industry has assumed the bulk of the workload in plan preparation and timber management operations in the province. We have the practical experience to be able to tell what is workable at a ground level.

We suggest that the evolving role of MNR as a resource manager on behalf of the public - and I stress on behalf of the public - is not adequately reflected in its planning process. Our perception of the adequate role of MNR is that of an agency which sets goals and objectives, ensures public scrutiny and progress towards objectives, reviews and approves timber management plans, monitors efficacy of

treatments, checks compliance with plan contents and

2	reports on the overall state of the forest resource to
3	the people of Ontario whose resource it is.
4	It is within this context, within the
5	context of over ten years of experience in timber
6	management planning and the FMAs, under the experience
7	gained with the new Timber Management Planning Manual
8	for Crown lands, the 34 plans we've prepared, under the
9	intensive examination of the MNR planning system as put
10	before this environmental assessment Board hearing,
11	under an assessment of the evolving role of MNR in
12	timber management, under belief of the necessity of
13	planning and under a track record of success that we've
14	had out there that we bring before you a proposal for
15	an integrated resources planning system for timber
16	management.
17	Madam Chair, we are building upon the MNR
18	system and we think the proposals we are putting before
19	this Board will have some merit and will further the
20	process which is now excellent.
21	With your permission, Madam Chair, I will
22	like to rise and stand to present the overheads and
23	carry on from there.
24	MADAM CHAIR: Please proceed, Mr. Innes.
25	MR. INNES: Thank you.

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After I slowly struggle with the cord hopefully this will go better.

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To design any system, we felt it was necessary to have a statement of intent as to what in fact we were trying to do. When we put together the statement of intent with the help of the people in the forest industry, and we relied upon them to give us their knowledge to see what was really required, and the intent that we have is to design a timber management system which will meet the requirements of the Environmental Assessment Act, to provide a continuous and predictable supply of wood for Ontario's forest products industry, to provide a formally organized structure consistent with EA class designation, be simple to understand by the public and that's a crucial one to us because we've dealt with the public in many, many open houses and on many situation on a one-to-one basis and the public must be able to understand the system, it has to be simple; to provide a meaningful opportunity for public input to the benefit of both society and also the resource manager who is preparing the plan and managing that resource on behalf of the public; to determine whether resource management objectives are being met; to be auditable for expenditures and results, and I will speak more

1	about that later; to allow for the use of professional
2	judgment, and you have heard Mr. Waddell talk about
3	that just a few minutes back; and to be effective at
4	the operational level.
5	The last thing we need are plans which
6	are not effective and not useful to the forest manager
7	to manage the resource. We don't need fakes plans is
8	what it boils down to.
9	MR. COSMAN: Q. What do you mean by fake
10	plans, Mr. Innes?
11	MR. INNES: A. Mr. Cosman, I am speaking
12	of a plan that the public can understand so they know
13	what's going to happen, that the public can understand
14	so they know what the plan's parameters are based upon
15	and a plan which is useful for the implementer to be
16	able to accomplish the goals and objectives set forward
17	in that plan.
18	MR. MARTEL: You are suggesting no
19	smoking mirrors?
20	MR. INNES: Correct, sir, we certainly
21	don't need that.
22	To move the process one step further
23	towards reality, we have put together components of the
24	integrated resource management system, the first one of
25	which is objective definition. We want to clearly

define the timber management component of the resource's goals and objectives.

manage like moose which have a timber management component of them and we want to be able to very clearly define what that component is so there is a clearly stated timber management objective and progress can be monitored towards getting there, which leads us into the second system.

There must be an evaluation system. We need to audit the results, to measure progress and to enable the adjustment of objectives so the specified goals may be achieved. Very rarely can you get the goals achieved in a short time span and, therefore, we have to have incremental goals, progress measured towards and adjustment of the goals to get to the place we need to get to.

In terms of public participation, we find this to be very worthwhile, it's necessary, we want to increase the public participation in the pre-planning stage under the system we are bringing before the Board.

I spoke a moment ago that the plan has to be simple and to do that we are going to break it into a plan, into a database. What people really want to

1	know is what's going to happen where on the ground
2	when. This has been told to us by time and time again
3	and in fact we believe it's meaningful; will the road
4	go here or will it go there, is it coming close to my
5	cottage or isn't it, is it going to impact upon that or
6	isn't it, that is what this type of planning will show.
7	The database which is part of the overall
8	planning system will provide a structured means for the
9	public to contribute to and to understand the basis for
10	decisions made about resource management on the
11	management unit. It's going to provide information
12	required to support resource management decisions and
13	provide a means of monitoring progress towards
14	objectives.
15	To put it simply, it puts everything on
16	the table. It gives an opportunity for those who want
17	to know how did you calculate the allowable cut, what
18	is the moose management strategy for the area and how
19	does it relate to this management unit. Those things
20	are answered in the database, they won't appear in the
21	plan itself.
22	Q. Will both the plan and the database
23	be wholly open to the public?
24	A. Totally open to the public, Mr.

Cosman, yes.

1	Q. Thank you.
2	A. This is something new and something
3	which we feel very strongly about and something which
4	we think will bring us to a point of getting very, very
5	concrete goals and objectives which are location
6	specific, and what we are proposing is a multi-level
7	committee advisory structure.
8	Q. You have just turned over to the next
9	page of on your overheads; did you?
10	I'm sorry, yes, okay.
11	A. Yes, I did.
12	Q. All right.
13	A. This multi-level committee advisory
14	structure is called advisory for a very good reason.
15	The Ministry of Natural Resources has the legal mandate
16	to manage the resource on behalf of the people of
17	Ontario and as such must make the decisions in the end
18	and be responsible for them; however, we see a real
19	role for the public to make input into the formulation
20	of goals and objectives and this advisory committee
21	structure is one way of doing that.
22	Currently, there is no formal requirement
23	for provincial, regional or district committees to
24	solicit public participation or involvement in goal
25	setting and the establishments of objectives. In fact,

there is some dialogue, but I stress there is no formal requirement and, furthermore, it's not broken down at any specific level.

We found that committees are usually established on an ad hoc basis after the particular issue becomes controversial and we've all heard about Temagami and the native fishing rights, et cetera, that happened after the fact.

Our proposed change is to establish a multi-level advisory committee structure at the provincial, regional and district level. At the provincial level, we're talking about a senior level policy committee right here, a regional integrated resource user committee and at the district level two committees, a local citizens committee and a technical subcommittee which would in fact replace the MNR planning team that is now proposed.

The rationale for this is to create a formal process for the establishment of the timber management component of overall resource management goals, and I stress timber management component, so we have something that's measurable, something that's traceable and something that you can attach responsibility to.

Also, it ensures a proper regard for

those other forest-based resources which influence or
are impacted by the management of the timber resource
provides a clear identification of management
objectives in a quantifiable manner, as I mentioned,
through an audit process which measures progress
through goal accomplishments and provides for public
involvement in an equitable and open manner.

I shall describe, Madam Chair, each of these major committee structures at each of these three levels here.

At the provincial level, the senior level policy committee encourages societal involvement at a very senior level and I think it would be appropriate to have people on this committee such as Mr. Huff of the Forests for Tomorrow, such as a senior representative of the Association of Chambers of Commerce, such as somebody from the Parks Council and we made some suggestions in our terms and conditions of what the appropriate membership might be for this level of committee, but it is senior people who deal on a provincial-wide basis.

As such, it provides an opportunity for single purpose interest groups, it provides a format for input into government policy, is provides opportunity for interest group commitment to policies

formulated since, in fact, they would be involved in this, have a stake in this and provides continuity of policy development and review and perhaps very importantly, allows for scrutiny of the policies and examination of the inter-relationship between them.

Some of the types of things that I think might be looked at here for a start would be a review of MNR policies, such as old growth, as I understand they are developing a policy on that. There are others no doubt that will have to be gone through in a very organized fashion, so we know at a provincial level how the moose and wildlife policies relate to timber management policies, relate to old growth, relate to parks policies and be able to get some sense overall of how these things inter-relate with each other.

Also at a provincial level, there be a technical committee provided here and the job of this committee is to review and update guidelines and manuals and I will explain to you in just a moment what we have in mind about guidelines and manuals. This committee would operate on a provincial-wide basis, would contain the experts in the appropriate technical field, professional field, and would make the guidelines the cutting edge of knowledge in that particular area.

1	MR. MARTEL: Where would they be drawn
2	from, universities and so on or just staff of various
3	levels of government and industry?
4	MR. INNES: Mr. Martel, our suggestion is
5	that they come from wherever it's most appropriate with
6	the greatest degree of authority and we have set some
7	criteria in terms of they must have a certain level of
8	academic standing, they must have some degree of field
9	practitioner experience and they must be recognized in
10	their field as being the top level people within that
11	particular field. Beyond that we have not restricted.
12	In my mind, if somebody who was the best
13	person there was in moose management happened to be in
14	Sweden, I would see it appropriate that we retain that
15	person for a certain length of time to assist these
16	things being developed. So it would not be limited in
17	scope at that rate. We are looking for the best.
18	I will explain further how this committee
19	would work when we get to the section on guidelines.
20	MR. COSMAN: Q. So you have just dealt
21	with the two components at the provincial level. Are
22	we now going to the regional level?
23	MR. INNES: A. That's correct, yes, we
24	will now draw our attention to the regional level.
25	It is our contention that regions aren't

the same; in fact, northwestern Ontario is not the same
as northeastern Ontario, maybe tourism in the northwest
is more important than it is in the northeast, timber
types are different, there are more lakes, et cetera.
So we are proposing that there may be a regional
committee called the Regional Integrated Resource User
Committee which would function at each one of the MNR
regions and this committee would provide a public
format to review and translate the provincial goals and
objectives into a regional real world environment.

In fact, you might want more emphasis on moose in one region than other because of the timber types being different and the moose herd being different, the hunting pressures being different, et cetera.

It also provides for a direct user involvement in regional policies, facilitates user commitment to regional MNR programs, provides regional continuity and provides for an adaptive management process by taking the big, broad provincial objectives and goals and try to quantify them on a more regional basis.

Again, I am looking for people that can operate on more than one management unit or on a one-town basis, but much the same type of

1	representation in terms of across the whole spectrum as
2	we talked about at the approval level.
3	This committee would obviously have to be
4	pretty well educated by MNR in what their regional
5	policies and goals were and understand how these
6	interacted and be able to provide some very explicit
7	advice to MNR and as we go through our planning process
8	you will see how we see this thing working.
9	Again, I stress it's advisory to the
10	Ministry of Natural Resources. I am now going to move
11	to the district level.
12	Q. Is this the next overview slide which
13	you indicated the two committees would replace the MNR
14	planning team?
15	A. Quite correct, Mr. Cosman, yes.
16	At the district level, as Mr. Cosman
17	says, replacing the planning team at district level are
18	two committees. One, the district local citizens
19	committee which provides for direct user involvement.
20	These are people with an interest in the local
21	management unit. It deals with their real issues,
22	facilitates user commitment to plans.
23	We think it would enhance the role of MNR
24	as a regulator provides for public education of the

25 planning process which is very important because right

now there is a knowledge gap there and, also, often a gap in knowledge is something which creates fear, mistrust, lack of understanding - and we don't need that - provides for continuity through user involvement in consecutive plans.

And this means that this would not be a committee which would be formed just for the preparation of a plan and then disappear after that; this committee would remain in place for the five-year life of the plan and might in fact deal with more than one plan. So they would have a pretty broad range of knowledge at a local level.

Supporting the district local citizens committee and the plan author would be a district technical group which provides technical advice to the plan author, encourages a broad range of technical expertise. We have used the term broader here to indicate that is not just the Ministry of Natural Resources. These may be technical experts in tourism, they may come from Ministry of the Environment, they may come from wherever its required, academia, to provide technical expertise as required for the preparation of this plan.

It provides an opportunity to deal with specific field prescriptions because they would be

focussed at a management unit level for a particular

plan and, furthermore, their interaction with the

various technical experts would encourage cross-over

between the forest-based resource programs.

As we are planning our mandate is timber management, but the timber management component of the other resource-based goals and objectives and programs have to intermesh here.

These three committees, Madam Chair, Mr. Martel, although they appear distinct and separate actually inter-relate and they feed back and forth to each other and my colleague, Mr. Munro, a little later on will describe to you how in fact this occurs. So they are not isolated committees.

- Q. The three committees you are referring to are the provincial, regional and district level committees?
  - A. That's correct.
  - O. Thank you.

A. And furthermore, I would like to draw your attention -- we think there is a very big benefit in having this number of committees and the benefit is, as on the bottom of the overhead, that it provides for effective participation of other users or interest groups at all levels.

The forest industry welcomes this. We have dealt with these people, it's not easy but it is useful and it's necessary and it does provide for effective management and we want to stress that this is why this was developed in this particular manner.

Madam Chair, in my earlier remarks I spoke about building upon the MNR planning system, a system which we acknowledge actually does work and works quite well, and to make the transition between where we are now in terms of the way we see our tri-level committee structure going and what is new with the planning system, I would like to bring to the Board's attention the sequence of planning events to develop a timber management plan, and then we will go into the next segment here.

We have called this a sequence of planning events to develop a timber management plan and in fact they are pre-planning components which we have identified in terms of background information, assembling information and analysis and review.

There is an integrated resource database we talked about, again assembly, analysis and review, report of past operations and future proposals, plan production, plan review and approval. And you might, in your wisdom, correctly say that's no different from

1	what MNR does, and you are quite right. Well, what we
2	are talking about is basically the same system,
3	however, here's what is new and here's one overhead
4	that requires no speech.

- Q. You are now, sir, going to deal with the specific changes that Industry is proposing to the currently proposed MNR system?
- A. What I did intend to do, Mr. Cosman, is to specifically identify what is different between our proposed system and that of MNR and then I will ask Mr. Munro to walk the Board through the planning sequence of events so the Board may understand fully how these relate to the preparation of a plan.

What is new is the caption: Integrated
Resource Plan for Timber Management Builds Upon
Existing MNR System, however, it's not the same as the
MNR system and there is nine major components which
have been changed.

The nine inter-dependent components are linked together to form a comprehensive system. May I stress that they are inter-dependent components, they are not separate, and as the last bullet indicates each of these nine changes is introduced as a part of a new planning system. We said that twice, it's a new planning system, it's a comprehensive system, and they

1	are collectively necessary for the integrity of the
2	overall planning system.
3	Q. So you are not suggesting that we
4	just pick or choose what we want?
5	A. I am certainly not. I would be most
6	upset if anybody did that.
7	Proceeding further, Madam Chair, with
8	what is new, here are the nine items. The first one is
9	the multi-level advisory committee structure which we
10	just spoke of a moment back. We are talking about a
11	new system of guidelines, by the way, we will deal with
12	each of these as we go through the presentation.
13	Areas of concern are treated in our mind
14	more effectively, there is an enhanced planning
L5	process, a different bump-up process, an independent
16	audit procedure, increased public consultation,
17	separation of the plan from the database, and a more
18	structured plan preparation in terms of public input.
19	Each of these nine things is different
20	and we will describe them as we go along here.
21	We have a different concept of guidelines
22	to a certain extent at least than what the Ministry of
23	Natural Resources does and under our new concept
24	guidelines are mandatory in their application. And I
25	shall describe for you now exactly what are these

guidelines.	I felt it :	important that	I walk you
through this	very, very	carefully and	for that reason
there are a f	air number	of words on th	nis overhead.

Guidelines are something that provide the boundaries of practice concerning the management of the forest as it relates to the particular resource to be managed. So there are boundaries of practice. As such, each guideline will outline the full spectrum of techniques available for the management of the forest to accomplish management goals for that particular resource.

A guideline, because it's different from the way MNR uses it - perhaps we are going to call it something different and maybe you would prefer to call it resource manual - will embody the most current knowledge available on the management of that particular resource.

And we have provided, as you have seen in the provincial technical committee, a mechanism -- a formal mechanism for ensuring that guidelines are in fact kept current and reflect the most current level of management practice.

A guideline will provide a framework within which a professional at a field level will be able to make professional decisions about how to manage

1	the resource. And a professional here doesn't mean
2	necessarily solely a forester, it will be the
3	biologist, the recreation manager, whoever else deals
4	with a forest timber component in their overall
5	resource strategy.
6	Guidelines, because they are available to
7	the public and are a part of the database of the
8	integrated resources plan for timber management, will
9	spell out what types of practices are acceptable for
10	use in the management of the forest estate.
11	But I want to stress something which I
12	know Dr. Baskerville stressed as well, that a guideline
L3	is not a cookbook approach to forest management or
L 4	timber management, in fact it has two purposes: One,
15	is to ensure that the professional practitioner always
16	has the most up-to-date information at his or her
L7	command so that the on-site decisions can be made in
L8	the most appropriate manner in the light of the best

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We feel we must never lose sight of the fact that it's the public's forest and they must know what is going on there and what the technical options are for the management of that resource.

information available and; secondly, to keep the public

informed of the options available for management.

And within this context we are suggesting

1	that practice in the forest be mandatory as outlined
2	within the context of these guidelines or resource
3	manuals.
4	I am going to switch, Madam Chair, to
5	item No. 3 which is the area of concern process. And
6	under the current system the AOC process requires
7	individual documentation and analysis of alternatives
8	for every AOC regardless of whether the planned
9	operations protect the value as per the guidelines.
10	Q. Why is there anything wrong with
11	that?
12	A. We have great difficulty, Madam
13	Chair, in dealing with the extraordinary number of AOCs
14	that we see being generated. Some management plans
15	that are being prepared now have 600, a thousand or
16	more AOCs and we see this being a very difficult
17	process to implement at a field level, even though MNR
18	is doing its best to lump some of the AOCs and deal
19	with them on a collective basis.
20	We thought hard about this and we tried
21	to design a more streamlined fundamental principle that
22	would treat values in a way which is meaningful, and we
23	have come up with something different as a result of
24	this.

I am going to try and tie something

1 together here for the Board and; that is, we will deal 2 with the AOC process in item No. 3 and we will tell you what happens if we hit a problem, which is item No. 4, 3 4 enhanced planning process, and then we will tell what 5 happens if that can't be solved and goes into a bump-up 6 procedure. 7 So as an overview there are three steps 8 to this overall process: One, is a new way of looking 9 at areas of concern which are really values; what 10 happens if in fact we run into a problem and they 11 really do become an area of concern, and what we do 12 about that and then, lastly, what avenues are there to bump-up if in fact no resolution of the problem is 13 14 there. 15 So given those three distinct components 16 which will be dealt with in sequence, we will deal 17 first of all with the AOC process. And the proposed 18 change here really centres around the identification of 19 values. 20 I am going to ask my colleague, Mr. 21 Munro, if he would deal with this and provide the Board 22 with a little more detail in terms of how we propose to

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go about this.

MR. MUNRO: A. Thank you, Mr. Innes.

Madam Chair, Mr. Martel, one of the key

1	elements that is different from the Industry proposal
2	and that that you have heard MNR present over the
3	last within their evidence, is that we see the AOC
4	process as being divided into three phases. The first
5	phase is the identification of values, the second phase
6	is what do you do if a value is not protected or it is
7	perceived that it is not protected
8	Q. Is it both of those things, Mr.
9	Munro? Why did you say what do you do if a value isn't
10	protected, or is perceived not to be protected?
11	A. It's both of the above.
12	Q. All right.
13	A. Okay. And that is what Mr. Innes
14	referred to as the enhanced planning process.
15	The third phase is bump-up; that is,
16	really what we consider a last resort after all other
17	attempts to resolve the issue have failed.
18	The identification of values is key
19	within the Industry proposal. As we provided evidence
20	in Panel 10 or will be providing evidence in Panel 10,
21	we see the identification of values initially being the
22	responsibility of MNR. They provide the initial map as

you have seen as a values map. That values map is

presented to the advisory committees, the advisory

committees, both at a local and a regional level, have

the opportunity to identify additional values. We do
not see the identification of values as a one-step
process. The identification of values occurs
throughout the planning process and throughout the plan
preparation period.

Once a value has been identified, the plan author applies the guidelines and the planning process to protect the value. The plan author does not do this in isolation, he does it in conjunction with the appropriate people. In some cases that appropriate person could be a tourist operator, it could be a technical person who has some technical expertise from MNR or, as Mr. Innes, indicated, technical expertise outside MNR, it could be MOE.

Working with the individuals that have the technical expertise, the plan authors puts together a plan activity. To give you an example, it could be that a tourist operator identifies an outpost camp as being a value. His concern could be the possibility that increased access could have an adverse effect on them. The plan author and the tourist operator would sit down with the guidelines, they would have some technical expertise if required available from OMNR and they would work out a plan activity. If that plan activity alleviated the concern that the tourist

operator had, in fact we no longer have an area of concern, what we have is a value that has been protected through a plan activity.

The second phase of that is what happens if other people have concerns about what that plan activity is, and that leads us then to the utilization of the enhanced planning process where a planned operation will not properly protect the value or is perceived not to properly protect the value by other individuals of the public, and I will call on Mr. Innes to explain the benefits of this and go on.

MR. INNES: A. Mr. Munro, thank you.

So what we are looking at, Madam Chair, is a way in which we identify values and in fact we protect those in the planning process as a normal course of planning activity. This happens prior to the preparation of the plan. So identification and the way of handling values occurs prior to the plan being written, so it doesn't come up as a surprise to anybody, it's an up-front evaluation.

And we think this has some benefits

attached to it. One is that it focuses on the issues

or concerns where in fact you can't handle values

through the normal planning process through the

application of the guidelines, so you are not treating

everything as a problem, you are treating only the ones which do become problems as problems.

Q. So taking, just as an example, a situation where there may be 1,000 different things identified as values they don't all become, as they are now, areas of concern and treated as areas of concern, only those which aren't resolved through the application of guidelines become areas of concern or subject to a separate treatment?

A. The term area of concern is now, as I construe it, something which means we have a concern that we must address in a separate way, and that is the next part I will get to in item No. 4 here.

Values are protected in the course of normal operations as per the guidelines. This cuts down on the environmental analysis of alternatives, except where areas of concern issues or new values are identified and then we think it's most appropriate that in fact environmental analysis be conducted so a proper evaluation may be made of it. Furthermore, we deal with road planning only when it crosses an area of concern and provides some problems, which will not otherwise be addressed.

It deals with values, as I mentioned, through a routine process, so it should reduce the

numbers of areas of concern, and our estimate is it

2	will reduce it drastically and that in fact reduces
3	paper planning of alternatives and concentrates the
4	effort really on where there are problems.
5	MR. MARTEL: It doesn't reduce the number
6	of areas - I don't want to use the word concern - but
7	where values are identified, those values will still be
8	identified early and in the normal operation resolve
9	any differences, and if you can't, you then move it on?
.0	MR. INNES: Very, very much so, Mr.
.1	Martel. You still have your values map. This value
.2	map, as you will see when we go through the planning
.3	process, it goes through a number of levels of
. 4	scrutiny. Those values are identified and they have to
.5	be taken care of as a normal part of the planning
.6	process.
17	So, no, it doesn't skip over values any
. 8	more than it handles them on a routine basis and
.9	only when this area of concern pops up is when we have
20	a problem.
21	MR. COSMAN: Q. Let me ask you this, Mr.
22	Innes: Will the reduction in the number of areas of
23	concern result in a reduction of the number of values
24	or in a diminished way in which those values are
25	protected?

1

1	MR. INNES: A. No, definitely not. No,
2	the values are still there and in fact they will be
3	protected, otherwise we have an area of concern.
4	Now, to get to Mr. Martel's point of what
5	does happen. If we have got an area of concern this is
6	what we propose happens. Under the current system all
7	areas of concern are treated as being of equal
8	importance. '
9	Q. You are now turning to item 4 in the
10	enhanced planning process?
11	A. That's quite correct, yes, and this
12	is the middle part of the tripartite process of the
13	identification of values, what happens if we hit an
14	area of concern, and the last one which we will talk
15	about in a moment, will be leading to bump-up.
16	So in this case we are talking about any
17	value which has been identified as requiring a degree
18	of protection beyond that provided in the guidelines
19	will automatically - I stress automatically - be
20	subjected to what we call an enhanced planning process.
21	Q. Is that enhanced process described in
22	detail in Panel 10?
23	A. Yes, it is, and Mr. Munro can give us
24	a flavour of that right now, Mr. Cosman.
25	MR. MUNRO: A. Thank you.

As I explained before, the identification
of values is essential within our planning process that
we have designed. You identify the value, you plan
your activities, people have the opportunity to review
that and identify concerns.

We are to the stage now where in the planning process we have put together a plan activity, we have produced a draft plan and an individual has a concern with regards to the plan activity within that draft plan.

We may have accommodated the tourist operator, a local citizen comes in and says: I don't really like what you are planning on doing, I have a concern. My concern could be I want to go hunting and fishing in that area myself, I do not like having the road closed to the general public.

At this point in time that party or individual identifies that concern, in some cases he will write that concern down, send it to the district manager or the planning author and ask for it to be considered. In some cases the individual will not write it down. At that time it is the responsibility of the plan author or the district manager to ensure that that concern is documented. They have to deal with the concern.

			There	is a	numb	oer o	of	steps,	as	you	can
see	on	the	overhead,	that	t we	have	e d	evelor	ped v	vhic	h
prov	ide	as	structured	prod	cess	for	de	aling	with	ı a	true
area	of	cor	ncern.								

The first step from an operating standpoint is to ensure that you understand what the individual's concerns are, therefore, we are recommending that an on-site inspection of the value by the concerned party, the plan author and, if necessary, OMNR take place, thereby we are dealing with few situations, we have a clear understanding what the concerns are, the individual can and will be provided with the opportunity for the plan author to provide an explanation of why the plan activity occurred the way it did.

author is obligated to provide a written report of the concern and a proposed solution in the plan. This is made available to the district manager, he ensures that there has been an attempt by both parties to resolve the concern by discussing the issue with both of them.

The party with the concern will have the opportunity to provide his or her preferred solution as well. The district manager takes both options, looks at them, assesses the merit of each and puts together a

1	preferred solution of his own.
2	We are recommending this simply because
3	it is OMNR's mandate to manage and ultimately make the
4	decisions in the end, thereby not favoring either
5	party.
6	If the preferred solution that the
7	district manager puts together is deemed unacceptable
8	by either party - and we would hope this would be
9	exceptional cases - the bump-up provision could apply,
10	or at least a request for bump-up could be instituted
11	through the Ministry of Environment.
12	With that I would like Mr. Innes to carry
13	on with the benefits and we will explain the bump-up
14	procedure next.
15	MR. INNES: a. The benefit of this, in
16	our mind, is that it focuses on areas where there are
17	problems, in other words areas of concern, and that it
18	provides a structured process for conflict resolution.
19	It's important to recognize that this
20	proposal provides an intermediate step for resolution
21	between perceived conflict and bump-up and that you
22	don't go straight to bump-up.
23	I think it has been our experience that
24	an awful lot of things can be resolved at ground level

by seeing what the problem is, by recognizing it, by

25

1	talking it through and looking for a way to find a
2	solution. We don't need to unnecessarily burden the
3	process with bump-up, even though it may be
4	well-intentioned, yet there has to be a way to get
5	there and I will describe that as the next overhead.
6	There almost must be a court for us to
7	appeal and I guess bump-up provides that. Under the
8	current system, the bump-up provision can be applied a
9	any stage during the planning process. There are
10	proposed changes, parties or individuals can request a
11	bump-up at any stage during the planning process, no
12	change. MOE would forward the request to the plan
13	author and the plan author can incorporate the concern
1.4	into the plan or use an enhanced planning process and
15	MOE considers the bump-up request after the final plan
16	is produced.
17	I am going to ask Mr. Munro to carry on
18	with this example here and explain what would happen,
19	in fact, if you couldn't reach a consensus as proposed
20	by the district manager in his example. Mr. Munro.
21	MR. MUNRO: I will go back to my example
22	of the tourist operator and the plan author putting

If the enhanced planning process failed

together a plan activity which a local individual had

23

24

25

some concernsabout.

to resolve the individual's concern, the preferred solution recommended by the district manager would go into final plan. The individual would be informed of that. At that time he could request a bump-up request from MOE. When MOE receives the bump-up request they would forward it to the plan author, they would forward it to the district manager. The plan author could exercise the operate option of incorporating the concern and the proposed solution of party into the final plan.

Q. What happens if the plan author doesn't do that?

MR. MUNRO: A. Failing that, an individual can take it to a bump-up request at which time all the documentation that has occurred as a result of the enhanced planning process would be forwarded to MOE and there would be the opportunity for MOE to review the documentation, discuss the situation with both parties, as well as the district manager prior to making their decision in terms of bumping up the plan, a component part of the plan for a specific activity that's going to occur in the plan.

It is through this process that we hope that by applying a rigorous planning system that individuals will make every effort to resolve the

1	situation prior to plan approval and prior to the final
2	inspection date.
3	With that, Mr. Innes will carry on.
4	MR. INNES: Thank you, Mr. Munro.
5	One of the benefits are that it requires
6	the parties to attempt to resolve areas of concern,
7	that it provides for complete documentation of the
8	concern through the enhanced planning process so that
9	the Ministry of the Environment has some background
10	information to work on if, in fact, it wants to
11	consider whether or not the bump-up was really to take
12	to the ultimate solution and allows the process in the
13	final plan to be completed prior to the Minister of
14	Environment's ruling on the request, so the plan can
15	can keep being put together rather than being stalled
16	as this is being considered.
17	The provision of data to the Ministry of
18	the Environment allows them to go through the
19	consideration process without halting anything.
20	MR. MARTEL: Can I go back just a moment.
21	MR. INNES: Certainly, sir.
22	MR. MARTEL: When you get an item or an
23	issue, if you resolve it where does it show up in the
24	documentation, on the values map or is there
25	supplementary documentation or how does one know that

1	that in fact has been resolved and can look at all of
2	that if they want?
3	MR. INNES: Very good question and we
4	have two proposals to answer that. One is that the
5	documentation in terms of enhanced planning would form
6	part of the database for the plan itself, it would be
7	resident in the database and you will see how that fits
8	into the overall planning process when Mr. Munro gets
9	to this, as to how that flows in the database.
10	Secondly, we are proposing that there be
11	a table in the plan itself, the one that's out there
12	for the public that identifies any of these areas of
13	concern which have not been completely dealt with at
L <b>4</b>	this time and show the stage they are in in terms of
15	they have gone to MOE, it has been decided, it's going
16	to bump-up or whatever.
17	It falls in with our intent, Mr. Martel,
18	that there be nothing hidden and everything be
19	available for public security and information.
20	With that, Madam Chair, if I may, I'd
21	like to move onto No. 6 which is the independent timber
22	management audit which is on the next page you have in
23	front of you.
24	This is a very important part for us.
25	Under the current system in this overhead, which I'm

putting up now, FMA holders are formally audited every five years and the next five-year plan is prepared prior to the results of that audit being available.

Crown or company management units are not routinely audited, but in fact they do occasionally get audited I must confess and they should be.

We propose that a formal forest management audit will be conducted on every management unit by an outside independent audit team. The audit will be timed as such that it would be on the last two years of the previous plan and the three years of the current plan and there is a reason for doing this — there are two reasons actually.

One is so that the audit team would be able to compare the plan before with the one currently going on so that they can see whether or not there was a change in objectives as a result of the previous audit and how the results were being tied into those changed objectives; and, secondly, so that the data would be available to the plan author for incorporation into the plan new plan being prepared. This is possible by having an independent audit team do this.

So there's some very significant benefits in this process, the way we see it anyway. One, that it utilizes actual data for the audit, like you are

collecting things that are ongoing still and current and relevant towards the goals and objectives which have to be changed in the new plan, it provides data for all management units instead of just FMAs which is important in our mind and it enables the plan author to use the audit for the new plan preparation and it shows changes in plan objectives as a result of an audit because of the two/three split in terms of two years of the old plan and three years of the current plan being audited and I think there's some real valid reasons for this audit.

The first one is that the forest industry is proud of its accomplishments out there at a ground level, yet rather chagrined that the public in general does not recognize these accomplishments for very many reasons and perhaps is suspicious of the data and not having data and being suspicious gives us much difficulty in getting the credibility in terms of a track record and we think this would help to alleviate that by collecting figures in this manner.

Secondly, there has to be a perception by the public as well as a reality that the figures provided in the audit are untainted and we think an independent audit would help that perception to be enhanced, that these are independent audits and the

Ţ	figures are clean and in fact they reflect what is
2	happening on the forest out there.
3	Thirdly, independence of the audit team
4	from MNR frees them from a bureaucratic process and
5	allows them to do it quickly and to provide the results
6	quickly so they can be incorporated into the
7	preparation of a new plan. We are quite thrilled with
8	the idea and think this is very worthwhile to consider
9	extremely seriously.
10	MADAM CHAIR: Mr. Innes, who comprises an
11	independent audit team?
12	MR. INNES: We're suggesting, Madam
13	Chair, in our terms and conditions that MNR be charged
14	with drawing up a set of guidelines which would be
15	sufficiently detailed to allow an audit team to act
16	independently and that they in fact appoint the audit
17	team since it's their responsibility for the management
18	of the resources.
19	MR. COSMAN: Q. Will they be people
20	within the Ministry, Mr. Innes?
21	MR. INNES: A. I don't think the
22	Ministry people would be precluded from this, though I
23	suggest it would be probably appropriate to be outside
24	the Ministry of Natural Resources.
25	MR. COSMAN: I can advise the panel that

1	we wil	l be	expar	ding	upon	this	in	our	ultimate	witness
2	statem	ent	and in	the	evide	ence	that	we	provide.	

MR. INNES: If I could invite Madam Chair to turn the page to No. 7, increased public consultation. I spoke about this as being one of our intents in terms of designing the planning system.

Under the current system, public information centres are usually held after the plan is completed and the public as a result has somewhat limited opportunity to comment on the background information or database.

The plan is virtually presented as a fait accompli and I would like to comment on that.

Our proposed change is that a public open house and review of the background information and data base prior to the production of a timber management plan be held by the Ministry of Natural Resources and when Mr. Munro describes the plan preparation process you will see what timing that occurs in and how it occurs.

Furthermore, we think there should be a second public open house and in this case it review the timber management plan, in this case be hosted by the plan author, be it the plan author from MNR or be it from the forest industry and specifically our intent is to make the plan author responsible for what's in that

document and to provide a focal point for the public to fasten upon that: Please explain to me what's in the plan, how it works and in fact who is responsible for it. So we want to link the plan preparation to responsibility and tie the plan author in this way into responsibility for accomplishment of the objectives.

What we don't want is an amorphous face that draws a plan up and a diffusion of responsibility as a consequence of that process. We want somebody responsible and we are saying, on the forest industry part, we are prepared to stand up, be counted, take responsiblity and to take the knocks if things go wrong.

The benefits here are that it provides for earlier input by the public in the planning process, it allows for earlier identification of problems and issues because these can be debated at the first open house and also at the second open house. It provides opportunity for the development of compromised solutions and you will see how this occurs because of the interaction with both the local citizens committee as the plan is being prepared before it goes public and also with the integrated resource users committee when concerns arise.

It increases public credibility in the

1	planning process and I spoke, before Madam Chair, about
2	the necessity of having this occur. It provides public
3	education of the process, clearly focuses
4	responsibility to the plan author, as I spoke to a
5	moment ago, and places more emphasis on the operating
6	components of the plan.

The separation of the database from the five-year operating plan is the next change we have from the way things are currently done. Under the current system management direction and the translation of provincial goals and objectives are incorporated into the timber management plan.

Our proposed change is in the background information and database. The database would contain provincial goals and objectives, the regional goals and objectives, technical considerations, inventory, policies and procedures, other resource — forest-based resource policies, et cetera. All these things will be addressed prior to the actual plan production.

Furthermore, they will be updated on a constant basis so it isn't a one-shot effort here.

This information will provide guidance to the plan author in the production of the plan for an individual management unit. So there is a lot of pre-planning that goes on here with a lot of public input and

1	everything is out on the table in terms of what are you
2	trying to do, what are the candidate policies and ways
3	of achieving this and how much public input is
4	necessary to get this to the author for the plan
5	production.
6	Q. So, Mr. Innes, if someone wants a
7	copy of the plan they will get, as I understand it from
8	your early, in effect a copy of the operating plan, bu
9	if they want to go further they can and then they will
10	have access to the database?
11	MR. INNES: A. That's quite correct.
12	Our experience has been that most people want to know
13	what is in the plan in terms of what's on the ground.
14	However, there is a segment of the public whose views
15	must be respected, whose input is welcomed and whose
16	challenges are valid in terms of what's in the
17	background, what are you really trying do and how did
18	you make those technical decisions that allow you to
19	put in your final solution in the plan.
20	Q. And that latter information will be
21	found where?
22	A. In the database.
23	Q. Thank you.
24	A. So the benefits as we see them are
25	the structure's review of MNR objectives, strategies

and targets. We think it simplifies the process
because it strings it out a little bit more and makes
it more visible, it separates management and technical
issues from operational matters, provides the
opportunity to modify the database on a continuous
basis without going through a plan amendment process,
because you are not trying to change anything on the
ground, you are trying to update the scientific
database here.

It simplifies the Timber Management

Planning Manual and the very complicated document it

now has become, provides for the production of a useful

working plan, by useful I mean useful to the public and

useful to those in the forest industry who have to

implement the plan, and it provides for a continuous

dialogue.

I would like to move, Madam Chair, to a discussion of the plan preparation process which my colleague will handle, and I under under this particular item --

Q. This is overview No. 9.

A. This is overview No. 9, it is up here now. We want to talk about what's different from the current system. Where a planning team is assembled, a great amount of focus is placed upon the preparation of

1	a plan in an 18-month period and the plan is prepared
2	reviewed, presumably approved, and everything disbands
3	until the next five-year period where it starts all
4	over again.
5	Our proposed change is to extend the plan
6	preparation period to accommodate review of the
7	background information and database prior to plan
8	production and I will ask Mr. Munro to walk us through
9	this process in terms of these story boards behind me
10	so you can understand how this whole thing fits
11	together and how these nine changes that we have spoken
12	about are incorporated into a step by step planning
13	process.
14	MR. COSMAN Madam Chair, that will be the
15	separate exhibit Timetable for Plan Preparation,
16	Exhibit 1115, which is in the same language as the
17	story boards that Mr. Munro will refer to.
18	If you wanted to follow it in front of
19	you, if you turn to Exhibit 1115 you have the timetable
20	under this proposed planning system set out and that is
21	what I understand Mr. Munro will address at this time.
22	MR. MUNRO: Thank you, Mr. Innes.
23	Madam Chair, Mr. Martel, before I start
24	with the Timetable for Plan Preparation, I would like
25	to explain briefly how we got to where we are today

with our proposal.

The timetable was not developed in isolation by a small group of industrial foresters, we consulted with many industrial foresters who have actively prepared plans under the current process.

In discussions with those individuals two things became quite clear. One, as Mr. Innes indicated before, we are dealing with two different publics. The the first public wants to know exactly what's going to happen, where it is going to happen, and how it is going to effect them. The second segment of the public is concerned with broader issues, whether they be on a district-wide basis or regional or provincial basis.

When we devised or designed our timetable for plan preparation, we wanted to do it to ensure that the public, whether one segment or the other, could have a basic understanding of the entire planning process and a timetable that would encourage individuals to actively participate during the plan preparation period. To that end we have extended the time preparation period to 28 months as opposed to the 18 months of the current system.

The main reason for the extension of the plan preparation period is to allow one year as illustrated on this board for pre-planning. During the

1	discussions with the Industry foresters it was felt
2	that if anything needed more time and more emphasis it
3	was on the pre-planning components.

With that I would like to go through step by step with associated dates on how plan preparation occurs.

On January 31st, during the first year, as indicated in MNR's terms and conditions, a list of all integrated resource plans for timber management will be made available to the public in terms of on a provincial-wide basis. At the same time that's occurring, the local district manager, as he does now, provides a notice to the local people, an invitation to participate. That invitation to participate in all likelihood will occur the same way it does now, letters will be sent out to people with known interests, local advertisements will occur on the media, and really there is no change in that.

What has changed at this point in time is the introduction of the integrated resource user committee at a regional level. The district -- or the district manager will be provided with some interpretation of regional goals and objectives. This will be accomplished by the regional director assembling the committee together, explaining to them,

educating them on terms of what the provincial targets are, what the provincial policies are, how that translates down into regional goals and objectives, and providing some basic direction to the district manager and the plan author on how the advisory committee at that level feels that those objectives and goals can be translated down to a district and management unit basis.

- 15

We feel this is quite key in a sense that, as was explained to you within MNR's evidence, there is a basic framework for planning and there is four components of planning; there is provincial basis, a regional, district and field implementation level.

All four levels are important to ensure that we have good sound workable management plans on a unit basis.

Once the direction has been provided to the district manager and the plan author, on May 1st we are recommending that the district manager call together the citizens committee. This is the local citizens committee. In conjunction with the plan author, he would review the regional resource strategies, the citizens committee would provide input and advise on how they thought that strategy could be implemented on a district or a management unit basis in terms of providing some direction to the plan author on

1	local concerns. Not only would they provide local
2	concerns and some advice, they would also play a key
3	role in identifying additional values.

At this point in time there would be a values map produced, it would be reviewed by the citizens committee and they would provide input and identify any additional values.

Part of the process that we are recommending is that there be a separation of the plan from the database. The database is really background information. The integrated resource database which is a resource inventory plus the values, and a report on past operations and some future direction.

One of the comments that we have always received at open houses is we have too much paper to deal with. The Industry proposal is that we condense that paper into executive summaries and that would be executive summaries of the three components that I mentioned.

The district manager with the assistance of regional staff would prepare the executive summary and background information. Background information is things like provincial policy: How is that policy translated down to a regional basis, how is the regional policies translated down to district targets,

what is the process that we are following, what is the District Land Use Guidelines, how are they being interpreted. And really a key element of the executive summary is to identify specific problems and issues with achieving those targets on a district basis.

If the district manager or the advisory committee feel that it is a problem and issue, the district manager must provide a proposed strategy to address that problem. That proposed strategy must be highlighted within the executive summary as well as providing some estimate of what it would cost in order to provide the best information.

The second executive summary is the integrated resource database. As I mentioned before, this is a summary of the resource inventory data that is available to the plan author, it's a summary of values identified to date. To give you some examples of that, it could be a summary of when the latest moose surveys were taken, in terms of on a particular management unit how current is our database. If it isn't current and the information is not available, the district manager must provide or highlight specific problems and issues and identify again proposed strategies to alleviate specific problems and issues.

In the case of a resource inventory gap

where we don't have the information, he would put
together a strategy that would identify how that
information was going to be collected or could be
collected, the associated cost of collecting that
information, and really the priority that it would have
compared to other things which are missing within the
database. That way we do have some priortization
established that we are collecting information or at
least putting programs together that provide
information on the most important elements that we
need.

The third executive summary is a report on past operations and proposed future direction. As the district manager and plan author are putting together the executive summary of background information and integrated resource database, an audit is taking place. It's an independent audit. As Mr. Innes explained, that audit is done with the assistance of the plan author obviously, but the audit team makes recommendations, assesses the past five years of the unit performance, whether it's a company or Crown unit, and provides some basic recommendation.

The plan author is responsible to ensure that he highlights what did occur and not only what did occur but how does that compare to what the previous

plan had indicated, and that is really the past forest operations. Using the audit and some of the advice or all of the advice provided by the advisory committee, the plan author puts together some strategies and objectives for future direction for the preparation of the next plan.

Once that is completed and the executive summaries have been put together, the district manager in conjunction with the plan author calls in the local citizens group. He reviews with them each executive summary. The person that was responsible for putting the executive summaries together must present the information. It will be a joint responsibility of the district manager and the plan author. The local citizens committee has the opportunity to review that information and provide input or additional advice.

We have provided approximately a one-month period for the district manager and the plan author to consider that advice and either incorporate it into the executive summary or at least highlight it as being advice provided by the local committee. This way we ensure that the public's advice at the advisory committee level is being identified and that it is available for other members of the public to comment on.

1	On October 31st of the first year, the
2	Ministry hosts an information centre.
3	Q. This is what Mr. Innes referred to,
4	is it, of the MNR hosted database open house?
5	A. That's correct, Mr. Cosman. The
6	reason that MNR is hosting the information centre
7	instead of the plan author is really the pre-planning
8	components take into account a lot of other resources
9	and it's important to have those resources, as much as
.0	possible, integrated into the timber management plan
.1	activities.
.2	Up to this point in time it's really an
.3	MNR responsibility, with the exception of the timber
. 4	management activities which is clearly the plan
.5	author's responsibility.
. 6	The plan author will be present at the
.7	open house, will be available to answer comments on the
. 8	timber management aspects. In addition to that
.9	individual, MNR will have their usual complement of
20	biologists, district land use planners and whoever they
21	would need to be able to answer the questions from the
22	general public.
23	Once that open house is completed we have
24	allowed a 30-day public review period which is no
25	different than what occurs now. I would like to stress

though that at the present under the current system
we do not have an open house or information session
reviewing the pre-planning components or background
information.

Once that 30-day public review period is done, the plan author and the district manager present the information to the integrated resource user committee.

Mr. Innes indicated that tri-level committee structure must have communications between the level. This is the first step in communications going up.

As we indicated at the beginning, the regional committee provides direction down, now the district committee is providing some input and advice up to the regional level. The district manager and plan author present that information and solicit input and advice from that committee.

So what we have done is basically completed one year of pre-planning. Everything is up front, it's on the table, the public has had the opportunity to understand the process, understand how the decisions were made on a provincial, regional, district level basis up to this point.

After first year, plan production

1	actually starts. The plan author has available to
2	him
3	Q. You are referring to January 1st of
4	year two?
5	A. That's correct, Mr. Cosman.
6	Q. All right.
7	A. The plan author has available to him
8	or her to utilize within the plan preparation the input
9	from the local citizens committee, the background
10	information that was compiled or assembled for the
11	purpose, the integrated resource database that was
12	assembled for the purpose, plus the public review, plus
13	the input that is provided from the various committee
14	structures.
15	At that time the plan author and the
16	district manager will have a clear indication of what
17	are the real issues that individuals are concerned
18	about. With that in mind the plan author excuse me,
19	with that in mind the district manager will have a
20	really good idea of who he should provide to provide
21	technical assistance to the plan author.
22	As Mr. Innes indicated, we see the
23	current planning team actually being the advisory

committee plus a group of technical experts that are

available to the planning team; available being that if

24

25

a plan author requires their assistance in providing rationale to the advisory committees, they will be available to do that.

The district manager appoints people to the technical group. It could be people with MNR, within MNR, it could be people outside MNR, it will be individuals that have technical expertise in dealing with specific resource management decisions whether it's water quality, fisheries or moose. He provides that direction to the plan author in terms of: Here are your technical group, these people will be available to you to produce the plan.

In addition to that, the district manager provides a list of interested individuals or groups that want to be involved within the planning process, people that have come in and indicated they have an interest, they have some valuable input to provide and they want to be involved.

At that time the plan author will contact those people, whether in writing or verbally - but it will be documented - to encourage those individuals to come in and actively participate in the planning process with the plan author.

This is new. The reason for it is that we believe that the plan author has to take

L	responsibility and has to understand directly what
2	individuals concerns are, what their values are in
3	order to be able to plan an activity that will
4	accommodate the other end users.

We have provided from January 1st to May 1st for the plan author to work with the technical group, the interested individuals, use the guidelines, use whatever is available at his disposal to produce a draft plan.

about May 1st. The draft plan again will be reviewed by the local citizens group. The district manager will sit on that group, however, it is the plan author's responsibility to ensure that committee has a clear understanding of what is in the plan, what the plan activities are, and how the values have been taken care of, and how their advice and input from a later stage have been incorporated into the plan.

After he has solicited their input and their advice there is a one-month period where he can incorporate that advice into the final plan -- or, I am sorry, into the draft plan.

Not only does he have to incorporate it if he feels it will produce a better workable plan, if he doesn't, the individual must highlight that advice

1	and	concern	in	the	document	which	goes	public.

The draft plan will be presented to MNR on June 1st for their review. This is no different than what is currently done. We are allowing a one-month period for MNR to review either the document --

Q. Is that what is done now, Mr. Munro?

A. I believe there is 60 days now. The reason that we have shortened the time frame is that we have so much up-front planning, pre-planning that we feel that MNR will be much better equipped to deal with the actual plan because they will have worked with the plan author and have a good understanding of why the plan activity is the way it is.

So we are not planning on changing the review process, we are just shortening it, simply because people have been involved on a step by step basis and should be intimately familiar with the plan prior to the draft plan coming across their desk.

As they do now, OMNR provides a list of required alterations. They do that now, it would be no different. The plan author has approximately two weeks to prepare an executive summary of public input to date as well as an executive summary on the list of the required alterations that has been provided to him by

1 the Ministry.

On July 15th the plan author hosts an information session. As Mr. Innes indicated, we do believe that the plan author that has produced the plan should be held responsible for what is in that plan and should be the person that is contacted if individuals have concerns with the plan activity.

This is not to exclude technical experts from the information centre. They will be available at the disposal of the plan author to review certain resource management decisions that did take place; however, the plan author is clearly the individual that people provide comments to and that he deals with directly if they do have any areas of concern.

Q. We have heard through the cross-examination, Mr. Munro, some suggestion that people at those open houses didn't know to whom they should be speaking and there was some uncertainty as to who would have responsibility. Would this alleviate that?

A. We would still suspect that there would be a large number of people there available to the public to comment on, but those people that do show up would clearly understand who the person is that wrote the plan.

Again, similar to what we have now, we have provided a 30-day public review period. Any comments, concerns or input that is provided during that time will be directed to the plan author so that he can put together his final plan knowing what the individual's concerns are.

On September 1st the plan author, with the assistance of the technical committee, summarizes the results of the public's input, MNR's review and presents that to the integrated resource user committee at a regional level.

explained for the local district level. They provide input, advice, assistance to the plan author. We feel that this particular committee could provide valuable insight into areas of contentious issues, if there is things out there that are better dealt with on a regional basis because they have a regional impact, and this committee would provide some valuable assistance to the district manager as well as the plan author in moving towards the resolution of those contentious issues or providing support for their particular stance that the plan author has taken.

Once that review has taken place, the plan author again has a period of time to put the final

plan together. We have allowed from September 1st to 1 December 1st for the plan author to put the plan 2 3 together and present the final plan to the Ontario Ministry of Natural Resources. 5 Again, as it is now, there would be a 6 30-day public inspection of the final plan prior to the 7 approval. 8 I guess that takes us to the final 9 period in year three? 10 That's correct, Mr. Cosman. 11 And what would happen there? 0. 12 Following the 30-day public review 13 period, the plan would be approved for implementation 14 April 1st. 15 One guestion that has arisen from our own 16 industrial foresters is: Why so much time between the 17 final public inspection and the approved plan. We feel we need this time if there is a bump-up request. We 18 19 don't believe that there is adequate time under the current process to allow that bump-up request to be 20 properly assessed by, if need be, the Ministry of 21 22 Environment and for them to make a good sound call on 23 whether that bump-up request should be entertained. 24 So, therefore, we are allowing a three-month period

basically to allow that process to take place.

25

1	We feel that that will provide an
2	adequate time in order for the Ministry of Environment
3	to make a decision on a bump-up request.
4	Q. Mr. Munro, just finally. The terms
5	and conditions posed by Industry as well as the
6	planning evidence which constitutes Panel 10 address
7	this process in some detail?
8	A. Yes, they do.
9	Q. Thank you.
10	MR. MARTEL: Can I ask one question, Mr.
11	Cosman? Why the lengthy time period from September 1
12	to December 1? Is that an unduly long time for you
13	have a plan, it hasn't been finalized, this is the
14	final run at it, but there's a three-month from the
15	review of the draft plan. Does it take three months to
16	finalize a plan?
17	MR. MUNRO: If I could just provide some
18	assistance, Mr. Martel. Once the draft plan is
19	produced, if you have gone through quite a lengthy
20	public review process and they have provided comments,
21	even the miniscule comment that is provided, if you
22	make a slight adjustment in the plan it changes the
23	entire plan, tables change, stand listings change, it
24	has the impact of revising your entire plan.
25	And what we have found is that, industry

1	foresters anyway, we need the time to ensure that those
2	changes do occur and that they are properly documented
3	and that we are not rushing it. And that is why we
4	have allowed a little more time, to give some breathing
5	room. It's really for the plan author to sit back,
6	relax, think about what he has heard and then produce
7	the final plan.
8	MR. COSMAN: Q. If we did away with the
9	documentation, we could probably shorten; is that
10	right, Mr. Munro? I am not suggesting that.
11	MR. MUNRO: A. We could shorten it a
12	great deal, Mr. Cosman, whether that would be advisable
13	or not is another thing.
14	Q. Okay.
15	A. With that I would like to call on Mr.
16	Innes to provide an overview of what has been said.
17	MR. INNES: A. Thank you, Mr. Munro.
18	Can I stress, Madam Chair, that that long
19	delay here that Mr. Munro spoke of between January the
20	1st and April the 1st is essential not only that
21	bump-up be properly dealt with, but it be dealt with in
22	a matter that gives us an operating functional plan on
23	April the 1st so our operations can continue without a
24	break.
25	I told you at the start that we believe

firmly in necessity of planning, we believe that it should be done with public input and done well and produce a meaningful document. And, having said all that, we have to have that in place at the correct time so there is no break in continuity of operations. So it is most important that we recognize that time span in there.

Having said that, I would like to very quickly wrap it up so I may keep Mr. Cosman's word that we shall in fact be finished by 5:30, and I will do that right now.

I invited you to consider what is new and if I may remind, Madam Chair, of the fact what is new in comparison with MNR, here it is.

The multi-level advisory committee
structure, a different way of deal with guidelines, a
different way of treating areas of concern and
identifying values in the operating process, an
enhanced planning process to look at areas of concern
which are real areas of concern, a bump-up procedure
which leads we think to a meaningful avenue for bump-up
in case there are real concerns which can't be
addressed at a local level, an independent audit
procedure up front, the opportunity for increased
public consultation which we welcome, a database and

1	plan separation to produce a much simpler plan, more
2	meaningful at the ground level for the public and fpr
3	the practitioner, and a more structured plan
4	preparation in terms of public input.
5	And, having said that, the last thing I
6	would like to leave with the Board is the thought that
7	these nine major components in fact are different, they
8	have been changed. We think they add to the process
9	and, furthermore, they are introduced as a part of a
.0	new planning system - stressing planning system - and
.1	they are collectively necessary to make the whole
. 2	system work.
.3	With that I thank you for your attention
. 4	and do wish you to consider our proposal.
.5	Thank you.
.6	MR. COSMAN: Thank you, Madam Chair.
.7	If I might say that you have had many
.8	months of listening to the evidence of the proponent
.9	and learning about the proposed planning system that
20	the MNR is operating under in fact.
21	In two hours of course we cannot do
22	justice to something new and different, but I hope it
23	has given you the overview of what you will see and has
24	given you context in which you will subsequently be

able to put the various parts of our evidence. You

25

undoubtedly will have questions and more as you go
along and we will have the opportunity I hope to
respond to those questions in Panel 10, and if there
are specific questions after your review of Panel 10
and our terms and conditions which detail this
proposal, please bring it to our attention in your
scoping session. We will ensure that we answer those
questions for you.

I hope you will see that this proposal was intended to bring in a new system which builds on the MNR system, that's open, encourages public participation and hopefully resolves conflict in a reasonable way.

You can see that Industry hasn't been sitting on its hand and just saying: We too support what you do, they have actually worked and I think you will see have developed a very creative, workable and, in the end, I hope you find supportable planning system.

And I thank you for your attention and for your additional time because I know you are sitting long hours and did sit long hours in order that Panel 4 may now be completed.

Thank you.

MADAM CHAIR: Thank you, Mr. Cosman,

1 Panel. Shall we take a short break, Mr. Cassidy, before we--3 MR. CASSIDY: Certainly. 4 MADAM CHAIR: --before we do the scoping. 5 I think it will be a fairly brief session. 6 MR. CASSIDY: I think so too, given the 7 parties in attendance. 8 MADAM CHAIR: Why don't we take 10 9 minutes. 10 MR. CASSIDY: Thank you. 11 --- (Panel withdraws) 12 --- Recess taken at 5:35 p.m. 13 ---On resuming at 5:50 p.m. 14 MADAM CHAIR: Please be seated. 15 MR. CASSIDY: Madam Chair, I have already 16 advised Ms. Devaul of some exhibits and documents which 17 you may find useful having tomorrow when we commence 18 the access panel, but for the benefit of whoever else 19 may be listening or reading the following documents I 20 think would be of assistance and that is, of course, 21 the copy of OFIA/OLMA Panel 5, the access witness statement itself, a copy of the case studies Exhibit 22 23 1100, a copy of the access guidelines which I 24 understand are Exhibit 683, and a copy of MNR's Panel

14, the exhibit number which escapes me.

25

Just a couple of other small matters,
Madam Chair. You will recall last week during the
evidence of OFIA/OLMA Panel 3 there was reference made
to geographic information systems by Mr. Saltarelli and
you will recall that I wished to have an opportunity to
confirm something that I and Mr. Saltarelli advised the
Board, and that is, that Exhibits 1025 and 1026 were
GIS produced maps by way of example to the Board.

You will recall those exhibits were produced during MNR's Panel 17B, I guess, the clearcut exercise. The person who I wished to speak to to confirm that is now sitting beside me - he has returned, Mr. Roll - and he has confirmed to me that those maps were produced using the GIS system and, therefore, you're now equipped with examples at least of what a GIS map looks like or maps.

I am also advised that it may be necessary for the Board to have a copy - if I can go back to the documents needed for tomorrow for the access witnesses -BS> a copy of Exhibit 1101 which is a copy of the photos filed during the case studies. I see those on your desk in front of you now and it may be advisable for other parties to bring those as well.

 $\begin{tabular}{lll} The third matter I wish to raise before \\ \begin{tabular}{lll} we get into the harvest matter is, I am - and I \\ \end{tabular}$ 

1	apologize for this - I am unclear as to when you were
2	planning, or if you have a time in mind as to when you
3	might be able to advise me on the proposal that I made
4	on behalf of the Boise Cascade for a trip to their
5	co-generation facility.
6	MADAM CHAIR: We can advise you now, Mr.
7	Cassidy. We want to take that tour and we have
8	instructed Ms. Devaul to speak to you about the
9	arrangements. It has to do with whenever she can get
10	us into Fort Frances.
11	MR. CASSIDY: Fine.
12	MADAM CHAIR: And so it would be either
13	Tuesday afternoon or Tuesday evening.
14	MR. CASSIDY: Thank you very much. I
15	appreciate that information. And those are all the
16	announcements I had to make or things
17	MADAM CHAIR: Mr. Cassidy, with respect
18	to Exhibits 1025 and 1026, those were used as examples
19	of HSG maps but they were produced by the GIS system.
20	MR. CASSIDY: I am advised that's
21	correct.
22	MADAM CHAIR: Thank you.
23	With respect to Panel 6, the Board has a
24	few questions of clarification.
25	First of all, there is an issue that came

1	up several times today and we left it until this
2	scoping session to discuss and; that is, with respect
3	to the silvicultural ground rules that are in the
4	timber management planning document.
5	They point to the harvest techniques and
6	the various silvicultural options that the company can
7	use, and we are interested in having a better
8	description of to what extent Industry and the Ministry
9	of Natural Resources work together in defining what
10	those will be.
11	Is it the case that it is the plan author
12	who puts together that table with knowledge generally
13	of what the MNR options are, or is MNR more actively
14	involved in suggesting what the harvest method might be
15	and the specific silvicultural options and regeneration
16	options?
17	On page 48, in the first paragraph, we
18	understand the description of a fire cycle but we are a
19	little confused in the third sentence which reads:
20	"A fire cycle is the time it would take
21	for fire to burn over an area equivalent
22	in size to the area of concern."
23	Is that area of the undertaking?
24	On page 52, also in the first paragraph,
25	the statement is made that:

1	"Clearcutting is not land clearing,
2	clearcutting is not harvesting."
3	We think we understand the context in
4	which you are making that statement but, of course, we
5	have heard evidence that clearcutting is a harvesting
6	technique and in fact does appear as the harvesting
7	preferred option in many situations.
8	We would just like that clarified in
9	terms of what you mean in that statement that
10	clearcutting is not harvesting. We assume it is a
11	harvesting method.
12	On page 72, the second paragraph, in the
13	second sentence there is reference to:
14	"The dominant historical disturbance has
15	been fire with windstorms assuming
16	greater importance in the more southerly
17	mixed wood and tolerant hardwood
18	forests."
19	We wanted you to confirm with us that
20	much of the evidence that the Board has heard to date
21	concerning blowdown, which is what we think you are
22	getting at with respect to windstorms, has been
23	primarily about the boreal forest and specifically the
24	problem with blowdown of spruce.
25	And we would like to know how that fits

1	in with this statement about windstorms assuming
2	greater importance in the more southerly mixed wood and
3	tolerand hardwood stands.
4	And our final suggestion has to do with
5	the graphs in the various figures. Mr. Martel and I
6	are going to have to have a very careful explanation of
7	how to read these graphs.
8	MR. CASSIDY: I can advise, Madam Chair,
9	that it is the intention of witness Dr. Methman to
10	actually bring a computer to the hearing room and by
11	the use - a rather interesting use if I might offer an
12	editorial comment - of the computer in combination with
13	the overhead, you will actually be able to see these
14	graphs move and develop over time.
15	And I can tell you, speaking as one
16	layman to another, it was required to have it explained
17	to me and, therefore, I have asked him to be prepared
18	to do the same thing to you.
19	So assuming we can go to the technical
20	difficulties of getting the computer matched up with
21	the correct overhead, which I think we will be able to
22	do by next week, you will be able to see the graphs
23	actually move.
24	MR. MARTEL: I thought it was Spiderman
25	for a while.

1	MADAM CHAIR: And those are the questions
2	and clarification the Board would want.
3	MR. CASSIDY: All right. Thank you,
4	Madam Chair.
5	If I could just deal with a few matters
6	arising out of the statements of issues that I have
7	been provided with, and I can advise that I received
8	statements of issues and have spoken to Ms. Devaul who
9	indicates that she has received the same statements of
LO	issue from Forests for Tomorrow, MOE and MNR;
11	therefore, I am operating under the assumption it is
12	only those three parties who intend to cross-examine as
13	the deadline was yesterday.
14	With respect to Forest for Tomorrow's
15	statements of issues which I am not sure you have in
16	front of you
17	MADAM CHAIR: Yes, we do.
18	MR. CASSIDY: All right. There are a
19	couple - and I appreciate that Ms. Swenarchuk is not
20	here - but I want to let the Board know what my
21	position will be next week in respect of a couple of
22	those matters.
23	If you flip to page 2 of the statement of
24	issues under the reference to the Panel 4 case studies,
25	the second bullet matter is the relationship of

1	silvicultural practices under FMAs to pre-FMA
2	silvicultural practices.
3	I will be requesting clarification from
4	Ms. Swenarchuk as to whether or not she is referring
5	there to harvesting practices or renewal practices. If
6	it is the latter, it will be my position that that
7	matter should be dealt with in the renewal panel.
8	Likewise, if you go down two more bullet
9	points with respect to the point - and I am quoting -
.0	referred to as:
.1	"Utilization of areas declared surplus."
.2	That is a matter which, in our respectful
.3	submission, the planning panel can deal with and
. 4	accordingly I will be making that position known at the
.5	appropriate time, of course when Ms. Swenarchuk is here
.6	and, therefore, it would be better dealt with in Panel
17	10.
8	Subject to that, Madam Chair, those are
.9	my comments on the statements of issues.
20	If I could request the multitudes
21	gathered here to indicate how long they intend to be.
22	I can advise the Board that my present projection is
23	that I intend to be one day and one hour in
24	evidence-in-chief and, Mr. Martel, you can time me on
25	that, or less.

1	And I am not aware of what the estimates
2	are from Ms. Blastorah on behalf of MNR or Ms. Seaborn
3	on behalf of MOE, but to assist us in terms of our
4	future planning, I would appreciate some estimate.
5	MADAM CHAIR: Ms. Seaborn?
6	MS. SEABORN: Two to three hours, Madam
7	Chair.
8	MS. BLASTORAH: I won't be
9	cross-examining on this panel, Madam Chair, but I am
10	advised that Mr. Freidin expects to be in the
11	neighbourhood of two to three hours, but I would make
12	that subject to discussing it with him personally. I
13	haven't had an opportunity to speak with him directly.
14	MADAM CHAIR: How long did you say you
15	were going to go?
16	MR. CASSIDY: One day and one hour.
17	MADAM CHAIR: That's what I thought. So
18	two days.
19	MR. CASSIDY: Yes. That does not include
20	Forests for Tomorrow in the calculation and I am not
21	aware
22	MADAM CHAIR: That's right.
23	MR. CASSIDY: She not provide me with an
24	estimate prior to her departure today, so that's an
25	unknown quantity. But it appears that if we - and I am

1	speculating here, which is dangerous to do - but if we
2	start access tomorrow morning bright and early at eight
3	o'clock and I am still within my projection of two to
4	two and a half hours, we can finish the
5	examination-in-chief by 11:00, Madam Chair.
6	And it appears that if Dr. Quinney is
7	correct in his estimate we can get through the Anglers
8	& Hunters by tomorrow potentially, and then we would
9	have all day Tuesday to commence and deal with the
10	Ministry of Natural Resources and Ministry of the
11	Environment and NOTOA on Tuesday in access.
12	And if we are prepared if the panel is
13	prepared to sit late, I can probably complete my
14	re-examination, although that's subject to hearing
15	cross obviously, such that we can commence harvest on
16	Wednesday.
17	We are dealing on Tuesday night with
18	submissions regarding the documentation requirements
19	for Forests for Tomorrow, and then on Wednesday night
20	we are dealing with Panel 7.
21	MADAM CHAIR: Did Ms. Swenarchuk say that
22	Mr. Castrilli is doing Panel 7?
23	MR. MARTEL: That's what she said last
24	night.
25	MR. CASSIDY: I think so. It is

1	long-range planning to plan a week ahead, but I am
2	hopeful that we might get some way to completing Panel
3	6 by the end of the week, although it appears likely we
4	will probably have to go into the following week to
5	complete Panel 6.
6	I am speculating again, Mr. Martel, but 1
7	can't predict the cross-examinations since I don't know
8	Ms. Swenarchuk's time estimate and it looks like we
9	won't be able to sit late any of the nights next week
10	in terms of hearing evidence.
11	MR. MARTEL: On Tuesday you present
12	MR. CASSIDY: No, Tuesday, sir, there
13	would be completion of access, Wednesday I would do
14	direct, and Thursday there would be cross-examinations
15	commencing. So we are into the following week.
16	MS. BLASTORAH: Madam Chair, if I might,
17	just for the purposes for planning my own time this
18	evening, can I assume that I will not be
19	cross-examining tomorrow?
20	I understand from Ms. Devaul that Dr.
21	Quinney has in fact projected or confirmed that Mr.
22	Hanna expects to be half a day. Given our short
23	sitting time tomorrow and the fact that NOTOA would
24	precede me in any event, I think if he is accurate

in his projection, I can assume I won't be on until

25

1	next week?
2	MADAM CHAIR: I think so, yes.
3	MS. BLASTORAH: Thank you.
4	MR. CASSIDY: Does the Board intend to
5	rise at three o'clock tomorrow?
6	MADAM CHAIR: Yes.
7	MR. CASSIDY: Thank you.
8	MS. SEABORN: And, Madam Chair, if I
9	might address the Board. I wanted the Board to be
10	aware that I have a trial in Toronto tomorrow and I
11	will not be available. This is a matter that was
12	scheduled for last August and I adjourned once to this
13	particular date on account of a cross-examination I was
14	conducting last August, but it doesn't look like there
15	will be any problem in terms of holding up the panel.
16	MADAM CHAIR: No, I don't think we will
17	be getting to you.
18	All right. Is there anything else?
19	(no response)
20	Okay, thank you very much. We will see
21	you at eight o'clock tomorrow morning.
22	MS. SEABORN: That's correct.
23	Whereupon the hearing adjourned at 6: 05 p.m., to be reconvened on Thursday, April 12th, 1990, commencing
24	at 8:00 a.m.
25	[copyright, 1985]









